



Angie Scarr



When the ruler appears throughout this book it indicates that projects are shown as actual life size. The projects in this book are based on 1/12 scale, but can be adapted to any scale you wish. See page 156 for more details about scale.



# Introduction

**C**REATIVITY IS A STATE OF MIND. It's a 'CAN DO' PHILOSOPHY and it can be learned. Like everything else it's easier to learn the philosophy when you are young. But you can prove to yourself that, given a certain degree of physical health, you can do almost anything you want to if you really set your mind to it.

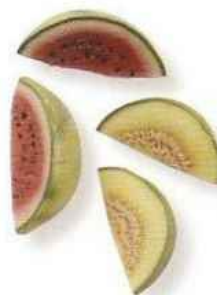
If you want your children to be creative, being creative around them is the best way to start. And never say 'I'm hopeless at this.' If you're a little frustrated, turn it around and say 'I'm getting better at this.' Or if you're really struggling – 'I will get better at this.'

How often have you said to yourself 'I wish I had half his/her talent at...' or 'I'd love to have a go at making that!' Most often, not getting started at the craft you 'fancy having a go at' is caused by not wanting to be seen as a failure. But trying and succeeding at the simple projects first increases your confidence level and that can encourage the next step. My first efforts were simple, ugly even. But they were a stage in a journey. I wasn't born with polymer clay in my hands!



Writing this book I'm conscious that there will be crafters and artists with many different talents and levels of ability. Some will be using the book as a therapy (creativity is very therapeutic) and some as a source book to increase their knowledge of materials and techniques. I hope that in trying to address all of these needs I haven't diluted the message that at any level making miniatures is enjoyable, therapeutic and sometimes even profitable.

So, if you're a beginner look first for the beginner logo, where you will find plenty of easy ideas and colour-mixing advice. Maybe have a go at some of the enthusiast sections as you feel confident. But leave the advanced sections until you feel ready. Similarly, if you're an enthusiast, you can pick and choose from your own sections and those a step forward. You may even learn something from the beginner sections. By this stage you should be developing your own style and just looking for inspiration in the colour and materials used. Those with advanced skills will, I hope, also find plenty to challenge and encourage them.







For some of the projects in this book you may like to invest in just a few specialist items – a couple of Diane Harfield **miniature flat-blade cutters**, for example (see below). Some **moulds**, either **bought** or **made** from **silicone moulding material** (see page 120), will be useful.

### Diane Harfield cutters

Diane Harfield developed this range of flat plate, etched metal cutters in response to her own needs and now sells them to miniaturists (see Suppliers on page 152). Originally based on sugarcraft flower cutters, they are intended for miniature flowers in 'cold porcelain' (see page 145). However, her range includes many cutters that are useful to the miniature food maker, especially those which can be used for miniature cakes. The 1/24 scale cutters are really useful and the calyx and tiny flower cutters can also be used for the tops of tomatoes and physalis sheaths, aubergines and so on. They are not cheap but, if cared for, will give long service.

*Right: Diane Harfield cutter number 115-12 (clematis), used to make the physalis decoration on the heart-shaped cake.*

*From left to right: Diane Harfield cutters, homemade silicone heart mould and purchased moulds.*

### Caution

If cold porcelain or clay gets stuck in the cutter, never use needles or metal implements to remove it. A cocktail stick is best for this job and will not damage the metal edge.

The fruit and vegetable tops can be made in cold porcelain as, although it air dries, it will tolerate baking along with polymer clay; however, with practice, the cutters can also be used for polymer clay. Whether you use cold porcelain or polymer clay a resist will be needed: for the porcelain, a white fat or cold cream, but for polymer clay, talcum powder works best.

Items made from these cutters will need glueing if meant to adhere to other polymer clay pieces and, in the case of miniature tomatoes, I use liquid polymer as a 'bakeable glue' (see page 94).



## Single-sided safety blades

### Using blades on pre-baked canes

(see Caution box)

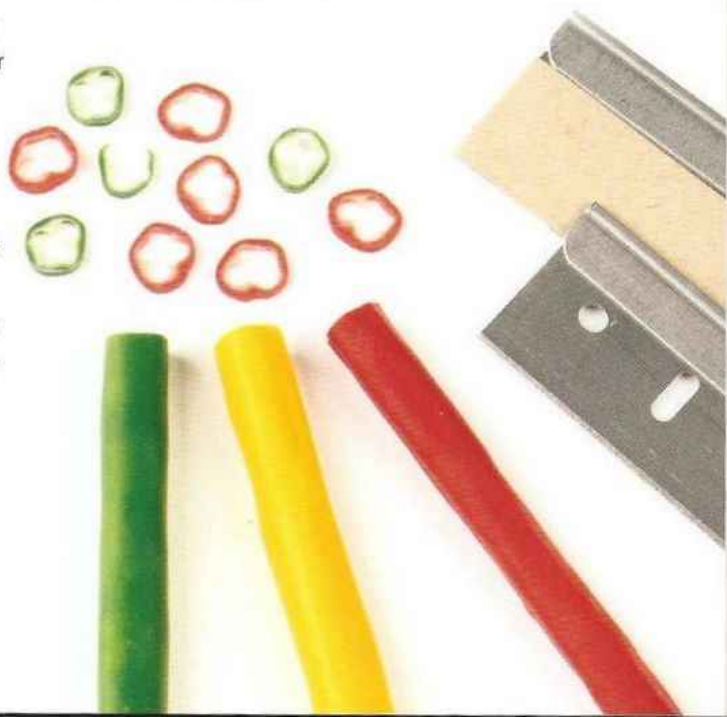
- When slicing pre-baked canes it is absolutely vital that you use a single-sided safety blade, and that your blade is very sharp.
- With the more flexible clays this is even more important, as the blade can literally bounce off the cane if it's not sharp enough to cut the cane, but it is still sharp enough to cut you!
- Grasp the blade with your thumb and second finger at the end of the safety edge, and use your first finger at the front of the safety edge to apply firm, even pressure.
- Do not use a sawing motion, which can destroy the edge of the cane.
- If you find the cane really difficult to cut, or you're doing a lot of slices, you can warm the cane in the oven at the lowest temperature for five minutes. Do not overheat the really rubbery clays, or those that have been overcooked, as for them the hotter it is, the less successful.
- Practise drawing the blade up the face of the cane, pulling it back to the thickness you want and then pushing the blade firmly down through the clay, without using any sort of sawing motion. This technique lines your blade up ready for cutting straight through, and can be used for slicing unbaked clay as well.

## Caution

Single-sided blades can be really safe provided you follow these precautions to the letter, so please read this advice carefully before opening the pack: open the blade pack carefully, by un-peeling the card at the overlap. **DO NOT EVER ATTEMPT TO SLIDE THE CARD COVER OFF OR BACK ONTO THE BLADE.** Most importantly, when using always cut away from yourself, downwards towards your work surface.



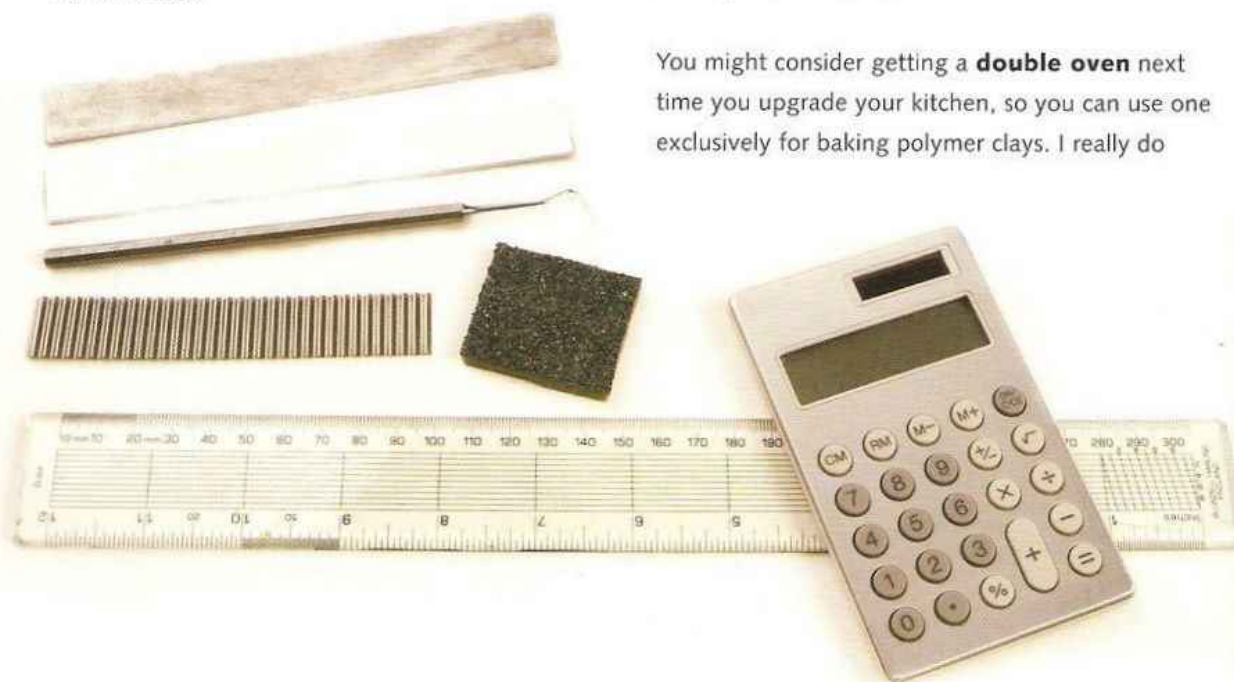
*Below: slicing pepper canes with a single-sided safety blade.*



## More advanced tools

- Tissue blade (for cutting larger quantities of clay)
- Tools and cutters, with sharp, angled and ball-point tips – available in sugarcraft shops
- Clay gun – for extruded items
- Dental tools are also quite useful
- Heavy-gauge sandpaper and screw threads for texture – from DIY shops
- Good-quality pasta machine
- Old food mixer could be useful
- Grinder (coffee grinders with metal bodies are good)
- Flexible and wavy blades (from art shops)
- Accurate ruler
- Circle template – to help measuring scales
- Calculator

*Below (from left to right): tissue blades, dental tool, flexible wavy blade, heavy-gauge sandpaper, ruler and calculator.*



*Above: eggcraft findings are useful as both texturing and cutting tools.*

Start collecting unusual items such as **jewellery findings** and **egg-making filigrees**. In the mould-making section I show how various materials can be saved to add textures to your work by pressing against the modelling materials, and how you can make moulds to add to your tool kit. You should also consider buying a **pasta machine** at this stage, for rolling out thin sheets of polymer clay. You might like to buy a toaster oven. Check internet sites for brand recommendations, such as [www.glassattic.com](http://www.glassattic.com) – a polymer clay encyclopedia – or groups like [www.smallstuff-digest.com](http://www.smallstuff-digest.com) – where a love of miniatures is shared among internet friends.

You might consider getting a **double oven** next time you upgrade your kitchen, so you can use one exclusively for baking polymer clays. I really do





*Left (from left, clockwise): kitchen timer, oven thermometer, icing nozzles and cheese grater.*

I recommend **laminated boards** as a work surface across your knees in front of the TV and you should consider making a **wooden cutting board** with a couple of raised sides (quadrant is good for this purpose), to stop things rolling off.

Other tools which can be collected from suppliers and even from the kitchen are: **icing nozzles** of different sizes and shapes (which can be used as cutters); **cheese graters** of different sizes; **potato peeler**, **kitchen timer**, **oven thermometer**. Just remember, *you can't return anything to the kitchen once you've used it for your craft.*

## Pasta machines

These are used for rolling out thin sheets of polymer clay, and for many of the moderate – and all of the advanced – polymer-clay techniques. Pasta machines come in all shapes and sizes, but I recommend the Imperia Titania range. They're a bit more expensive but last much longer. If you are a beginner, you may prefer to buy whatever is cheapest, but bear in mind that it may break down

fairly quickly, as they weren't designed for anything as tough as polymer clay. If you're buying second-hand and unboxed, a wooden handle is always a sign of a good-quality machine. Make sure you clean your pasta machine between each colour change (see page 20).

If you're attaching your pasta machine to a glass or easily damaged table top, you will need a piece of rubber mat and a piece of wood. Put the rubber mat between the machine and the table, and the wood under the table top so that the screw-clamp screws up to the wood, not the table.

## Caution

**The pasta machine must be dedicated to your craftwork: once it has been used for craft, never use it in the kitchen for food use.**

*Below: a pasta machine becomes vital when you start to attempt more complex caning techniques.*





## Cleaning up

If using a glass table, a piece of kitchen towel is perfect. Do not be tempted to use moist tissues or baby wipes, because they may leave behind residues of moisturizers or other chemicals which could adversely affect your materials.

For other surfaces, or for really stubborn marks, wash down with a damp cloth and a mildly abrasive cream cleaner. Make sure you remove all traces of the cleaner. Wait until your surface is completely dry.

## Tools and blades

Just wipe with a clean cloth, unless kept in a damp place, in which case just wipe on, then carefully off, with olive oil or cooking oil.

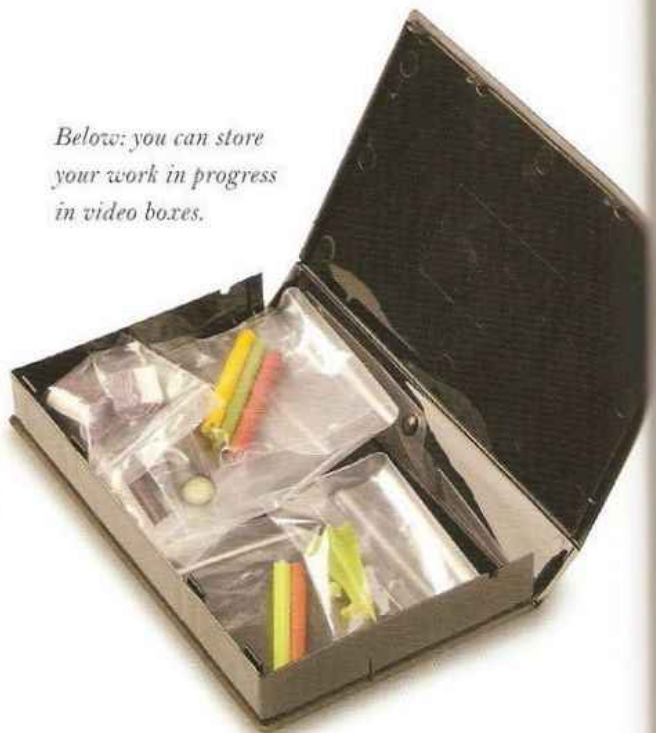
## Pasta machine

I find it useful to keep a light-coloured lump of polymer clay stuck on the side of my pasta machine to use as a pick-up tool when cleaning the surface of the machine and the space around it. I use it until it's really dirty, both for running through the machine several times between each colour, and for picking up tiny bits of clay that have fallen around the machine. I don't think it's necessary to take a pasta machine apart to clean it! If your pasta machine constantly holds and re-deposits large amounts of old clay on your work it may be a poor-quality machine. However, usually you can clean by running a little porcelain or translucent clay through the machine after each use, or before the next. There is very little you can do to avoid any scraps getting in the machine.

## Storing work in progress

Beginners simply need **Tupperware tubs** and **plastic grip bags**. As you progress, **video boxes** and plastic grip bags will be useful for partially finished work, and will stack in readily available, wooden box-style units. The more advanced will find that **standard, square ceramic floor tiles** will fit just nicely in these units and, if you attach strips of quadrant to the sides of the 'boxes', you can store five tiles full of work in progress in each opening. If you're likely to leave the work unfinished for long, wrap each tile lightly in a plastic grip bag. Never store polymer clays in the type of clear, brittle plastic beloved of tool storage-box manufacturers, as they react with these materials and dissolve them.

*Below: you can store your work in progress in video boxes.*



# Ovens & baking polymer clays

There is much discussion about which type of oven is the safest to use for baking polymer clay. To my mind you are more likely to produce toxic gases when using a smaller oven, as it's not as easy to control the temperature and the bars are much closer to your work. So, if you prefer to use this type of oven you can avoid direct heat and keep any fumes in by putting a foil lid over your work (but bear in mind you then cannot see your work during the baking process).

Every oven is calibrated slightly differently, so follow the manufacturer's instructions. However, I have to admit that – because my products have to be durable – I bake at a slightly higher temperature for a bit longer. It's actually rather an exact point you have to achieve for perfection. Polymer clay 'polymerizes' at a certain temperature, i.e. softens and sticks the molecules together turning them to plastic. Much below that temperature, the material fails to polymerize and remains brittle; much above and it overcooks and causes it to melt.

## Important note

Baking times and temperatures are not given for the projects, as they vary for different types of clays. Always follow the instructions on the packet, invest in an oven thermometer and try the oven testing procedure.

## Caution

If you overcook any type of polymer clay or other modelling/moulding material, turn off the oven immediately and leave the room until the fumes clear, leaving the doors and windows open if possible. The oven, if used for food, should be cleaned thoroughly after any burning incident. If any piece of clay falls into the oven it must be removed/cleaned off as soon as the oven is cool.

## Checking oven temperature

You should use an oven thermometer, but this is how I check the performance of my own oven when I move house. It takes time but, if I always put the articles in the middle of the oven, I can be pretty sure the results will always be the same.

- I make a thin snake of polymer clay leftovers, about the thickness of one of my canes, then I bake it at the temperature/time on the packet.
- I then check the performance on the 'cane' while still warm but not too hot to touch, by bending the cane almost in half; if it snaps very easily, the oven is too low; if it can be tied in a knot, or any fumes are apparent, it's too high; if it bends but finally snaps, it's perfect.
- If it's not perfect, I adjust the oven by 2–3 degrees up or down and try again.

# Polymer clay

**P**OLYMER CLAY IS A MAN-MADE, COLOURED 'PLASTIC' CLAY. It is based on fillers, plasticizers and pigments. It becomes solid when baked at a fairly low temperature in a conventional oven. Each brand has different 'secret' ingredients and each one may be more useful for one type of craft or another. Some are better for modelling, some for 'millefiore' or caning work. Most brands will mix but the results cannot be guaranteed. Although beginners may be happier with a softer clay, don't be afraid of stiffer more crumbly clays because often when properly conditioned these can be the better clays for caning.

I have had a love affair with polymer clay which has lasted for 25 years so far, and which continues in spite of the many recent changes to formulations.

The more I play with it, the more properties I discover. So, don't be frightened to play with the material just for the joy of playing. Too many students and beginners tell me that they are frightened of opening the packet for fear of making a mess and 'wasting' the clay. Learning is not a waste of either time or material.





# Modifying polymer clays

*Beginners and even enthusiasts may find the differences in clays, their handling during different weathers and humidities, confusing. Advanced students will know that many of these problems can be overcome by a few simple steps.*

## Preparing clays for use

Even if you're using your colour unmixed and straight from the pack you still need to knead it to soften and condition it. This makes it more flexible and removes any air trapped into it during the manufacturing process. I recommend you pre-mix some colours, especially those I use as foundation colours, as mixing can be time consuming.

### Temperature

If the weather is too warm, you may want to cool your clay, your tools and yourself. Wash your hands regularly in cool or cold water, and dry them well. Sticky clay comes away from your hands better in cold water. Place your work to 'rest' in the fridge between stages, gently wrap it in kitchen roll to avoid condensation building up on the clay and adding to the problem. You can also do the

same with your equipment. Again, don't forget to wrap in absorbent paper. When I'm working with polymer clay in southern Spain, where the temperatures are often very warm, I always have a fan on. If you're lucky, air conditioning avoids the need for all this.

If your work room is cold, you may want to heat your work area or even your work surface before you start. A pasta machine is a useful tool for balancing heat and cold. With soft clays, especially in warm weather, it can keep handling with sticky hands to a minimum. In cold weather a warmed pasta machine can really help the conditioning process. Keep a hot water bottle or a hand warmer on your machine between uses.

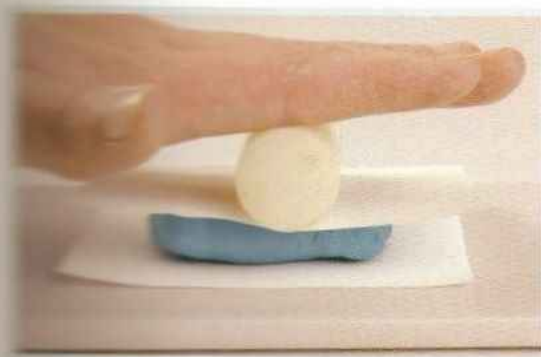
### Humidity

If humidity is a problem, regular rinsing of your hands in cold water and drying well with an absorbent towel can really help. In these situations the use of 'wipes' on your hands can actually exacerbate the problem. I use long cotton aprons on which I wipe my hands, often.

*Polymer clays must always be kneaded before use to soften and condition whilst removing any trapped air.*







*Rolling soft or sticky clay between two sheets of clean paper will help to leech out excess oil.*

## Mixing different clays

When working in polymer clay, if you are using more than one type of clay or quality of clay you'll need to test whether they mix happily. You also need to be aware if you are using colours or materials of a different softness as they may stretch at a different rate, distorting your 'picture'. A stiffer clay will also 'pull' against a softer one. When making complex pieces the softer clays are more likely to lose definition, especially with the non-cylindrical canes; on the other hand the stiffer clays are more likely to have air gaps and poor adhesion which can also cause distortion.

## Using old clays

The older your clay is the more likely it is to be dry and crumbly. However, some clays actually improve with a little ageing. If your clay is too dry, Polyform has an additive called Sculpey diluent. A few drops can be added to the clay during conditioning but I prefer to add it to sliced clay the night before (where possible) to allow it to soak in. It is based on mineral oil and some people use baby oil as an alternative, or one of the liquid polymers. There is an optimum time after which the clay is made when it is best to use it. If you are blending two

colours into a cane and one clay is old but the other new, what can you do about it? You could add the liquid clay softener as above, or add in a translucent clay to both if you can get away with a little translucency, or just to the one which is too hard if translucency would be a problem. Another tip is to condition both first with the pasta machine, and then condition the stiffer clay manually as well. Keep the soft clay cool and the stiffer clay warm. In practise this is an extremely difficult balance to achieve and once you start working on any complex piece you must work as quickly as possible.

## Modifying a soft or sticky clay

'Soft' and 'sticky' are not the same thing. A clay can be soft but completely unable to stick to itself. On the other hand, it can be relatively hard but have a surface feel that is incredibly sticky and takes fingermarks easily.

To modify a soft clay, try adding a portion from an old pack of harder clay. Soft or sticky clay can also be improved by leeching (rolling between two sheets of clean paper and leaving until the paper looks oily); this can be done as many times as you want. You can also try adding an inert powder like whiting, talc, cornflour or Shovelled Snow to the clay. This method will work better with some clays than others, but it will always reduce the ability of the material to adhere to itself.

An alternative way to change the quality of the clay is to wrap it in a kitchen towel and refrigerate for a couple of hours or days.

# Polymer clay qualities

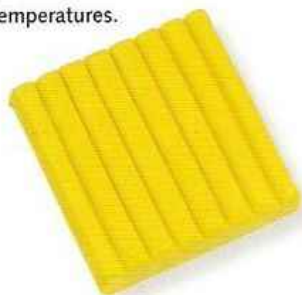
*All these clays have merits for miniature work and they are not necessarily listed in order of preference. Some companies produce soft forms which I have left out of this listing, although some are specified later for specific colour mixes.*

## Fimo

Fimo is traditionally one of the most widely used clays and was, I believe, the first to be produced. I have been a Fimo user for more than 25 years. There have been recent changes to the formula – due to European legislation relating to toys. During the changes, there were some difficulties with handling and performance but these seem to have been resolved.

**Good points:** Wide availability in EU and US, nice colour range, translucent, and good softness for beginners.

**Bad points:** Variable quality, fragile when baked to recommended temperature. For more professional durability would need to be baked at higher temperatures.



## Premo

An American clay from polyform products. Premo is also suffering from the changing formula problem. However, the quality doesn't seem to have changed quite so dramatically as that of Fimo. Though it also seems just a little on the soft side. A nice smooth clay in a moderate variety of colours (but no leaf green); nice for complex caning. The translucent doesn't look as good as Du-Kit but is effective in mixes.

**Good points:** Available in US, UK and EU, smooth clay colours are named as artist pallet colours.

**Bad points:** No leaf green.



## Fimo & Premo

Fimo and Premo are addressing safety issues relating to materials used by children in Europe. This requires that they are designed with safety for children in mind. Other clays will have to conform to similar legislation if they wish to use the CE mark and be widely available in Europe as the European Union classifies ALL polymer clays as toys. The US, which recognizes polymer clays as art materials, is also having legislation on formulas tightened up.

## Kato Polyclay

Olivia Kato designed this American clay for caning artists and it follows that this is one of the best clays for this purpose. Initially quite hard, it soon 'relents' and is then smooth. Canes are a little tacky on the surface which causes drag when trying to slice thin slices from unbaked canes. The colour range is small but growing slowly. Kato also sell high-pigment primary colour blocks to enable artists to mix their own density of colour.

**Good points:** Available in US and UK, but not EU. Designed for the professional, pigment blocks.

**Bad points:** Lacks opacity for some jobs, but can balance this with pigments and white. Needs to be baked at very high temperature for durability.

Other polymer clays either not tested or not easily available in the UK include: Cemit, Uro, Pro-sculpt and Modelene.



## Du-Kit

Du-Kit is made and supplied in New Zealand. It can be used straight from the pack. A smooth, firm, slightly sticky clay which bakes at a higher than average temperature to a really durable plastic. This makes it especially good for projects where good adhesion (stickability) is a necessity, and where the finished work needs to be strong. This makes it especially good for the canes built on needles. However, it does have a little problem of sticking to the pasta machine which means that it is prone to shredding. When using it for caning, it is best not to condition it before using it in the pasta machine. Lacks opacity for some jobs but colours are dense enough to add a little white to make more opaque.

**Good points:** Toughness, nice translucent.

**Bad points:** Not available in the EU, UK or US, oily surface when baked at higher range and difficulty with using in pasta machines.



## Clay Color

Clay Color is made in Spain and at the moment is not widely available outside of Spain and Portugal. It is an unusual clay in a huge variety of colours but no attempt seems to have been made to optimize the colours for blending and no colour blending chart is available. It has a fairly rubbery feel both unbaked and baked. It resists blending initially but soon conditions and mixes. I have used it for complex canes but each colour must be at the same stage of condition, including temperature. This means you have to work fairly quickly, otherwise you end up with a lot of waste as the centre of the cane sinks in. It is produced in two forms, 'Soft' and 'Professional'. There are also six very pale translucent colours. The nearest to a colourless translucent is called 'Peach'.

**Good points:** Tough and flexible, white holds it's colour.

**Bad points:** No colourless translucent.





# Colour mixing

*Polymer clays are constantly being changed by the manufacturers so this book only gives colour 'recipes' on beginner projects. These mixes are approximate and may change. This guide will help you to achieve your own colour 'palette'.*

## Getting a taste for colour

Have you ever wondered why some miniature foods just don't look quite right? I often do and it is usually my own work I'm being critical of. Colour has to be spot on. Any small discrepancy in colour makes something look unrealistic. However, you can get away with imperfections in form and scale if the colour is so good you can nearly taste it! When caning with polymer clays, you have to

be prepared for some wastage. I know that the material can be expensive, but mistakes with colour are very obvious. If a cane didn't work, throw it away (or recycle the material). Don't make a hundred kiwi fruits all the wrong colour. You'll hate them, and the fact you wasted so many hours making them.

## Developing a style

Different artists work looks as if their work has been infused with different light. For example, I have one friend, who's work used to look as if it was bleached out by the sun a bit like Monet's garden. I really liked it the way it was. Now that her colour has changed to a stronger and more vibrant Van Gogh-style palette I like it just as much. It reflects a completely different style and mood. These variations aren't necessarily agonized over. Don't force your personal style, if you get the basics right then one day you'll find it will just be there. There are, however, some foods that are just difficult to get right in terms of colour and translucency. If you want your food to look so good you can almost taste it, here are some basic rules:

### Rule 1: buy it and try it

If you're making something edible, in miniature then why not buy it, take it apart, examine it, sniff it and taste it? Maybe I'm going a bit far, but you can only reproduce something if you understand what makes it what it is. Personally, I still go out and buy a cabbage when I want to make a new batch and every time they are different.

### Rule 2: mix your colours

You need to prepare your palette just like an artist in paint. You are an artist in three dimensions. If you get the colours wrong, they will be wrong all the way through.



### Rule 3: translucency

Translucent clays can change whenever the manufacturers change their formulas. In its unmixed form, Fimo used to be very opaque. Now it's rather more translucent. I like translucency in my work, but I like to be in control of how much. All of life displays a certain degree of translucency. Miniature food which doesn't contain any translucency simply looks too heavy for scale. When I am ordering clay, I order far more translucent than all the other colours put together! The more translucent you add the lighter your work looks. You can even give your work a dreamlike or fairy-like look by overdoing the translucency deliberately.

### Rule 4: baking

Some colours change whilst baking, especially at the top end of the suggested temperature range. Many colours change slightly towards the yellow or pink end of the spectrum. Even a slight change in a subtle colour can spoil a perfect result. White can go pinkish if slightly overcooked. Greens and reds can become a little more yellow. The translucent clay added can also change how a colour looks when it is baked. There is no substitute for experience here but you can make little squares of colours, bake them and log the result.

### Rule 5: shades

If you are making a shaded colour, be aware that the shades don't necessarily go from one colour directly into another. I used to make leeks from

*Lighter shade colours when making shaded canes.*

## Important note

**When mixing really translucent colours such as green for kiwis or grapes, add the colour to the translucent, and not the other way round.**

green, shaded straight into white, but the colours in the middle were wrong; I realized that the middle was spring green, that is to say that this green contained more yellow, and I needed to add a third colour to my shade (see leeks project on page 80).

### Rule 6: fading

Lastly, don't forget that colour may fade with time. If you want to time-proof your work, here are a couple of tips: firstly, don't leave it in strong sunlight. Secondly, use more yellow in your greens rather than leaning towards a blue spectrum, because yellow seems to fade first. You may have noticed that I said oven-hardening can add a yellow tint and now I'm saying time takes it away! The best you can do is have a relaxed attitude – even old paintings fade with time.



# Pastry cases

*I remember my mum making fruit flans by blind baking a pastry base and adding custards, fruits and a glaze. You can pre-make pastry cases of all sizes for tarts of all sizes by using the recipe below.*

## You will need:

- Polymer clay in white chocolate mix (see page 34) with a little ochre or light brown
- Tart/pie dishes
- Cutters
- Pastel chalks in umbers, sienna and ochre shades
- Soft, short-bristled brush

## See also:

Bakewell & iced tarts  
– page 102

Mince pies – page 104

Lemon curd and fruit tarts  
– page 110 and 111

## tasty ideas

The simplest thing you can do with these pastry cases is to make fruit tarts using prepared fruit canes, either the pre-bought ones or your own. Use a little liquid polymer to both glue in and glaze. Also you can simulate confectioners' custard with thickened liquid polymers (see page 111).





1 Pastry ought to have a crumbly appearance but polymer clays are quite smooth; however, in 1/12 scale this is less obvious. Use the basic white chocolate mix (see page 34) with a little ochre or light brown. Otherwise, it depends whether you want your pastry to look cooked, and how cooked. You can still get away with quite a range of hues as long as you use a range of powders to colour the edges a little.

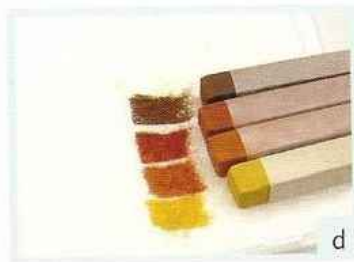


2 Collect bun and tart tin shapes, which can be as simple as raised-head counter-sunk washers, available at DIY shops. Or miniature metal muffin tins. These ash tray shapes make excellent medium-size tarts. Miniature plates and bowls can be used and re-used as pie dishes (a), (b).

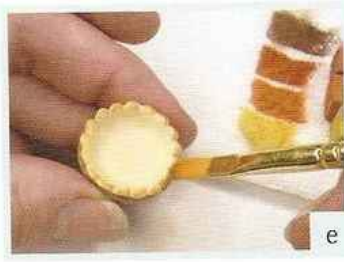
Or you can make your own tart or flan shapes in a mould using frilled-edge cutters to make your master (see page 120).



3 To cut your tarts you can either use plain circle cutters which you have plain, or you can use blossom cutters. My favourite cutters and washers, however, come from eggcraft washers and are pressed metal flanges and flanges (c).



4 Colour the edges of the cases with chalks or pastels. My favourites for this job are pastel chalks, but you can use decorating chalks from card craft suppliers and even make-up powders. You'll need umbers, siennas and ochres; the artistry in the mix is down to you (d).



5 You will need a short-bristled, soft brush that is not too narrow. Have some confidence but make sure you put more colour on the raised bits which would be more likely to overcook or even burn (e).



# Chocolate buttons

*Many brands of polymer clay have a colour actually called 'chocolate'. However, most of these chocolate colours contain too much red, I have found that adding green is the key! Chocolate buttons are a good project for beginners to start with.*

## You will need:

- Chocolate mix of your choice (see mix chart below)  
or chocolate-coloured polymer clay
- Metal icing nozzle with a small hole of around  $\frac{1}{16}$ – $\frac{1}{8}$ in (1.5–3mm)

	Milk chocolate	White chocolate	Dark chocolate
<b>Fimo</b>	chocolate + leaf green 1:1	translucent + white + champagne 8:6:1: plus a scrap of yellow	chocolate + navy + black 8:2:1
<b>Premo</b>	burnt umber + green + ecru 2:2:1	transparent + ecru + white 8:4:1	burnt umber + navy + black 8:2:1
<b>Clay Color</b>	3211 + 2123 + 3216 4:2:1	2102 + transparent peach 2:1	3216 + 2112 + 2122 8:2:1
<b>Kato Clay</b>	brown + green 16:1	translucent + white mix 3:1 + white + yellow + brown 40:3:1	brown + u blue + red + black 6:2:2:1
<b>Du-Kit</b>	dark brown + light brown 1:1	translucent + white mix 3:1 + yellow + light brown 40:3:1	dark brown + navy + black 8:2:1
<b>Uro</b>		magnolia	



*Note* Some of the Clay Color shades used are in the soft range. I mention Uro here, although it is not currently widely available, because the magnolia is a particularly useful colour. It cannot, however, be mixed with other brand clays.





a



b

1 Roll out your chocolate mix, preferably in a pasta machine on a very thin setting and sprinkle talcum powder over the top, brushing off any visible excess of the powder (a).

2 Using the icing nozzle as a roller, repeatedly cut out circles (b).

3 Normally the tiny circles pile up on each other inside the nozzle forming tiny snakes of chocolate buttons. These will fall apart fairly easily; press each one on a ceramic tile to bake (c).



c



## tasty ideas

*Use chocolate buttons to decorate cakes, pack in jars for the sweetshop or glue on little plates for the doll's house occupants' after-dinner treats. You could also photocopy and reduce the packaging of real chocolate buttons.*

# Easy caning

CANING IS THE TERM USED BY POLYMER CLAY ARTISTS TO express a technique similar to millefiore. Essentially caning is a process by which you make a large version of a form that you want to miniaturize and then stretch it. In stretching one way the dimensions alter to make the object smaller in the other direction or 'plane', so a short fat cylinder, for example, becomes a long thin cylinder. If you put a pattern into the short fat cylinder, the same pattern will appear much smaller when the lengthened cane is cut through anywhere along its length.

Some people refer to these cylindrical canes as 'logs', but a cane can be any shape, and start off at any size. To make miniatures the shape must be 'prismatic', that is to say, you must be able to lengthen it by rolling stretching or pulling in one direction.

Regarding quantities of clay needed, there is no definitive size for the projects. The principle of caning is that you start with any size you want, and the amount of clay you will need depends on whether you are making one item, or a batch. A beginner should start with just a very small amount, so as not to waste it.

In later sections we will look at different shapes of canes, and different forms of lengthening, but we'll start off with simple log-shaped canes.



# Egg cane

*The simplest cane form that you can make is a basic two-colour log. This egg cane uses yellow and white clay to simulate slices of hard-boiled eggs. As with all of my projects, you don't need to make nearly as much as I have here.*

## You will need:

- Yellow and white clay

1 Condition both clay colours to a similar softness and then form a log of the yellow.

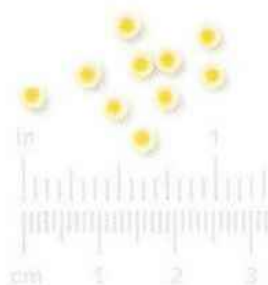
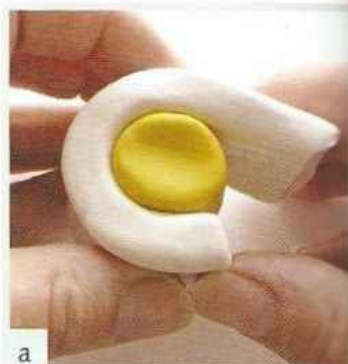
2 Make a thick slab of the white; cut it at a slight angle to help the edges to join perfectly in step 3, as overlaps in a cane like this would spoil the result.

3 Wrap the white slab around the yellow one, joining the edges (a).

4 Lengthen the slab by squeezing it in the middle, then squeezing it outwards towards the ends (b).

5 Roll the cane in your fingers, but only roll it down to its final scale at the very end.

6 Bake the canes, then slice as required when baked.





# Stuffed olives

*These are made in exactly the same way as the egg cane, but using green clay for the olives and red for the pimento stuffing. Add a little brown to leaf-green clay for the olive colour, and add orange to red clay for a good red-pepper colour.*

## You will need:

- Red and green clay

1 To create the olive colour, add brown to leaf green. If it is too dark, remedy with a beige-coloured clay.

2 Follow the egg cane steps 2 to 11 but use green clay in place of the white, and red clay in place of the yellow (a-c).

3 Make individual olives, by 'breasting' the ends to half close them so that the red appears to be a completely different part to the olive green (d-e). Bake the individual olives, then glue onto a display, or make a bowlful together, pouring a little liquid polymer into the bowl before baking, to keep them together.



# Coconuts

*The brown shell of a real coconut is lined with a dark and opaque inner shell, which sticks to the coconut flesh when pulled apart; the flesh is very white with a certain degree of translucency; and the stratification runs inward.*

## You will need:

- Mix of 4:1 parts brown to black clay (for the shell)
- Lighter brown: a mix of brown and ochre clays in equal parts + a little orange and leaf green (for inner shell)
- Clay mix: 3:1 translucent to white clay (for the white flesh)
- Ball tool
- Small stiff paintbrush – an old 'ruined' one is fine
- Coconut fibre (available from craft shops, but see below)
- Fast-grab tacky glue

## TIP

Make four times as much translucent/white mix as brown mix, as the edible part of the coconut is about four times thicker than the shell. Keep this in mind and the proportions should look just about right.

## tasty ideas

*For the husk on the coconut, I used organic soil substitute – bought from a miniatures fair in small bags – and ground it down finer using a pestle and mortar and the smallest of the fibres from the real coconut that I bought to examine. But you could use some coconut fibre which has been cleaned and processed.*



1 Sandwich the dark brown shell  
between two layers of the lighter  
inner mix.



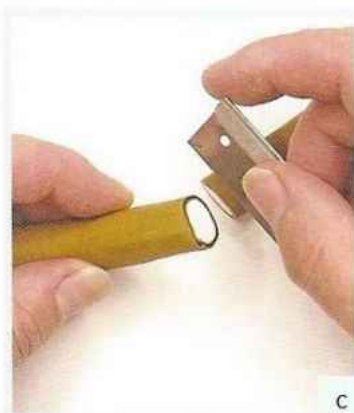
a

2 Roll the white mix into a  
sheet (a cane) and wrap with the  
sandwich of the other colours. Make  
sure the brown meets exactly with  
the next layer (a).

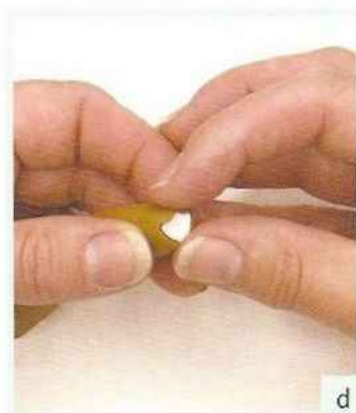


b

3 Lengthen the cylinder by  
re-squeezing the middle and then  
rolling your way outwards, towards  
the edge. Do not roll these canes too  
much as this makes the colours distort  
when you use most of your work.  
You can squeeze quite firmly – if the  
orientations are right you can distort  
the shape a little by squeezing, and  
then put it right by squeezing the  
other way (b).

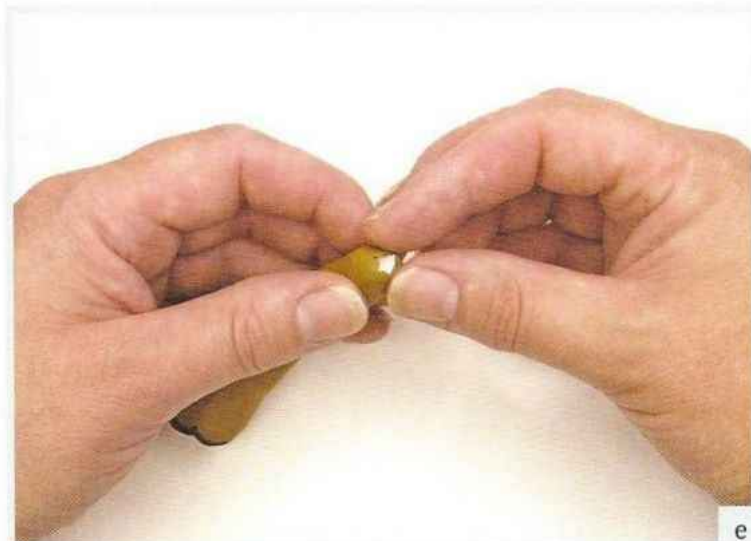


c



d

4 Once the cane is lengthened to  
about 1/2 in (12mm) wide, cut it to form  
a thin edge; then close the outer skin  
over the inside part. This should be  
done gently, 'persuading' rather than  
forcing the edges to meet cleanly, with  
no water visible. If it becomes too  
tense, just put the end back (c-e).



e

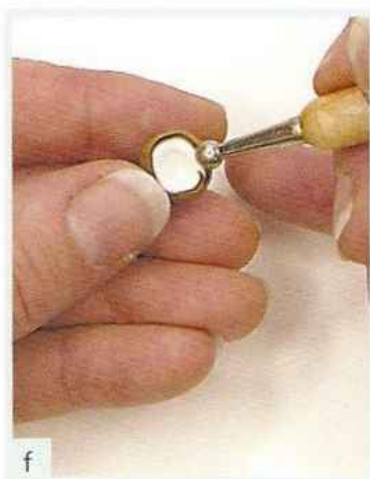


## For a broken coconut

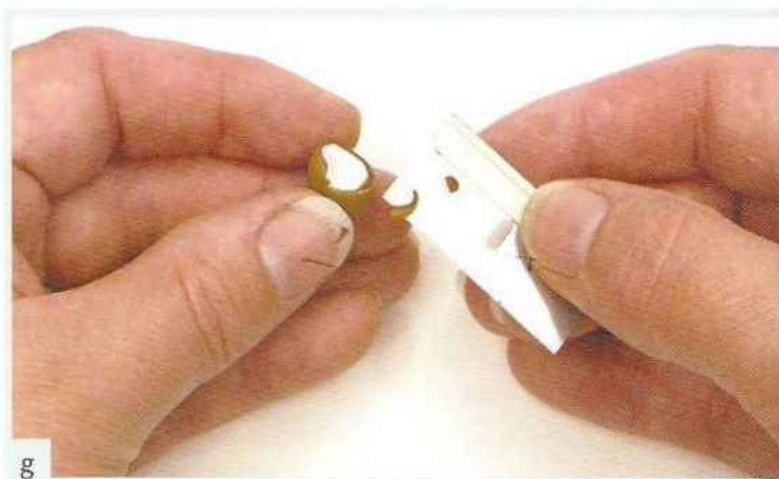
**5** Cut this end off the main part of the cane, as if you were making a half coconut (the next stage will make it look as if it's a larger piece of broken coconut). Use a ball-ended tool to press

into the centre to hollow it out. Do this for both sides, but make the top a little more pointed and smaller. Remember, a coconut is rarely cut cleanly – it's more often smashed, leaving a jagged edge;

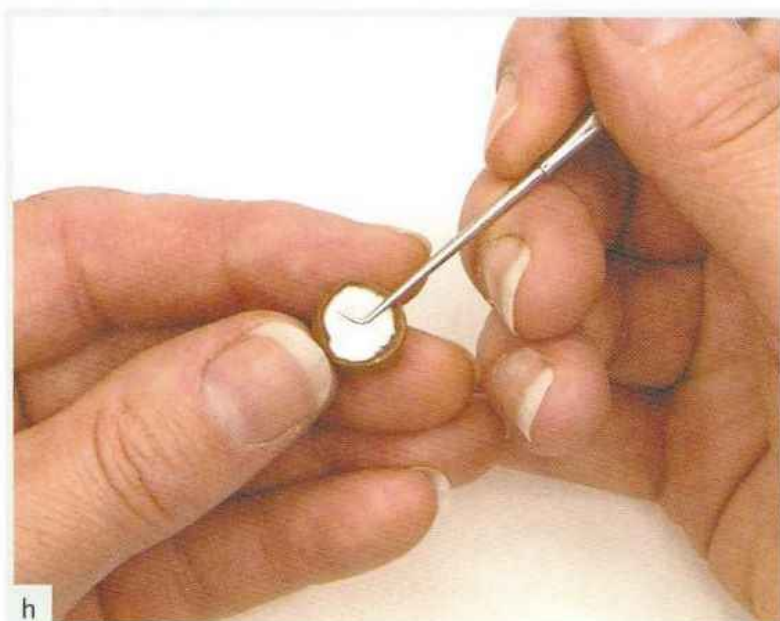
I therefore cut a little out of my coconut bottom and repeat the process to form a matching top, then use a pointed tool to scrape little lines into the top of the white flesh part (f–h).



f



g



h

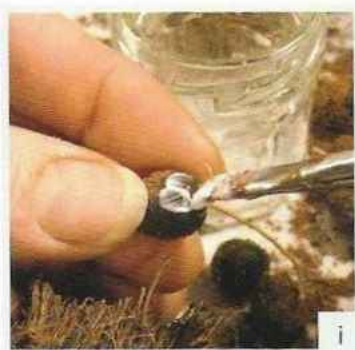
## For a whole coconut

**6** You can just make the shape out of brown clay, or you could use a failed cane (no-one will see inside, so it doesn't matter). Close the second end up a little more pointed.

**7** Bake the whole and half coconuts, according to the clay manufacturer's instructions. Do not overcook, or the white will turn pinkish.

## To apply the 'husk'

Plant glue on the area you want to cover in the fine-ground husk: for the whole coconut this means the outside, but for the halves, just cover the bottom. I used a chopstick to hold the husk firmly while applying the glue, then sprinkled the brown powder over the glue. You need to use a strong, tacky glue for this, and to push the fibres to the bottom. Pinch them together at the top of the whole coconut shape and add more of the powder and glue (i).



9 If you want to be really authentic you can use the finest of 'threads' from a real coconut husk or just some mid-brown thread to add to the outside (j).

*The coconuts are shown here in a seasonal basket.*



# Moderate caning

**T**HERE ARE NO SECRETS IN MY WORK. IT'S ALL SIMPLY a combination of polymer clay techniques and just looking really hard – oh, and sometimes just a touch of exaggeration.

For instance, what makes my bananas popular is that you can see the tiny seeds. If you look at a real-life banana you will occasionally see a tiny seed or two but, because in twelfth scale they are so very tiny, that's where a little bit of artistic licence comes in.

One of the skills you'll need if you're using these methods is to develop the ability to see things in terms of 'planes'. Just to test yourself, look at a ripe banana. If you peel and cut a slice off the banana and look really carefully, you might see that it is made up of three sections – if it's not too ripe, you can even pull a slice into three. Each section is the same, and within that section is a mirror image. It looks like two little wings with a spot on the bottom of each. Now think of the whole banana; keep cutting it – it looks pretty much the same all the way down.

That's what I do when I approach a project. I actually buy the food I'm reproducing, and then I mentally, or even physically, cut it to pieces. That's the only real way to get the colours and the form right. The nice thing is that you get to eat the thing you're copying afterwards. Although it might appear time consuming to go to all this trouble, you only have to get it right once to be able to make enough for every one of your friends or, of course, to sell.





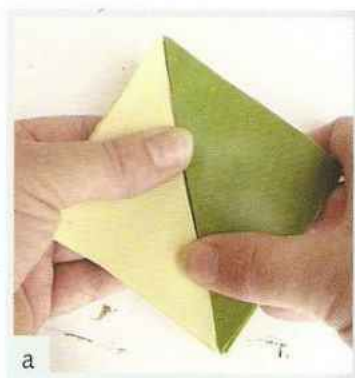
# The Skinner shade technique

*This method of creating gradient colours in clay was developed by Judith Skinner, a jewellery maker from Arizona. It is quick and effective, and very useful where there is natural shading between ripe and unripe parts of fruit.*

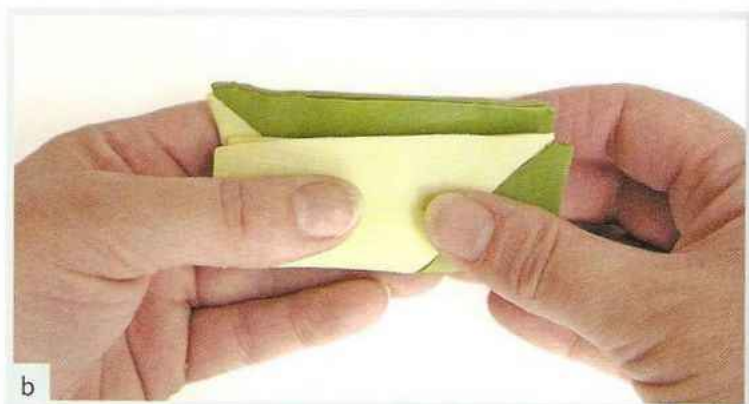
## You will need:

- Two colours of clay
- Pasta machine or rolling pin

**1** Roll out two colours of clay and cut them into triangles of equal proportion (a).



**2** Position the diagonal edges of the triangles together so that they form a rectangle (b).



**3** Keep folding and rolling the rectangle in the same direction, using a pasta machine or rolling pin, until you achieve a perfect blend, graded from one colour to the other (c).



# Using Skinner blends

*There are two ways of turning a blended sheet into a block, or cylinder of gradient colour. Method 1 is very easy, really pretty and quite effective, but a bit less subtle and if you look closely, you can still see the colour steps. However, this is not a problem unless you are a perfectionist.*

## Method 1 (bead-maker method)

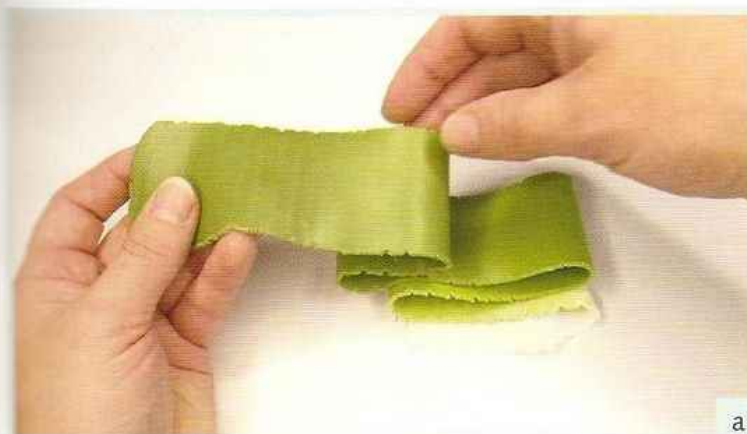
### You will need:

- Clay, blended as described on facing page
- Pasta machine

**1** Turn the blended clay 90 degrees to the way you usually put it through the pasta machine.

**2** Run it through on increasingly thinner settings, until you have a long thin ribbon of clay blended through from one to the other end (a).

**3** Then, either fold the sheet over and over, to form a fat graduating stack or wrap this thin strip round and round to form a cylinder that looks as if it blends from one colour to the next, from the centre outwards.



a

## Method 2 (my usual method)

When you have your thick, shaded strip folded and cut into a fatter stack, force the clay into another dimension, as required. The asparagus project pictures (e) and (f) on page 53 show this process. It takes practice, and most people use Method 1 but, if done properly, this method gives a smoother gradient.

Whichever method you use, you can then use the prepared clay to make:

- A cylinder, with the shade from the outside in, as in the avocado project (page 50).
- A 'cube' as in the celery (page 56) or asparagus (page 52) projects.
- Or you can use it for offset stacking, as in the advanced leeks project (page 80).



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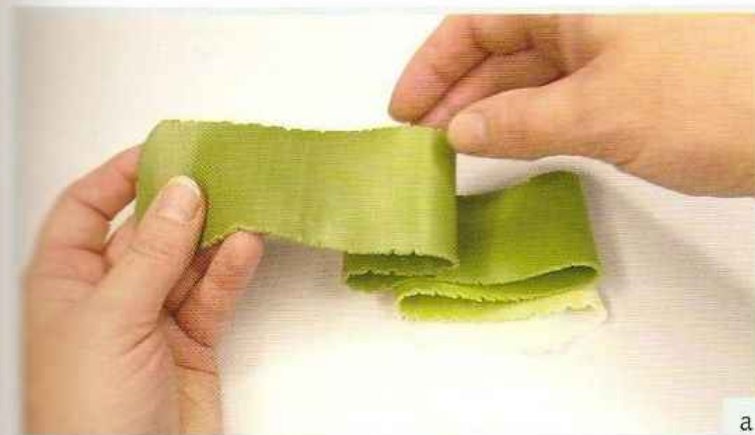
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a

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- A 'cube' as in the celery (page 56) or asparagus (page 52) projects.
- Or you can use it for offset stacking, as in the advanced leeks project (page 80).





# Asparagus



*The Skinner shade technique (see page 48) is ideal for creating the asparagus stalk where it goes gradually from off-white to a fully developed green at the tip. The clays you use must be of a similar quality and texture for it to work.*

## You will need:

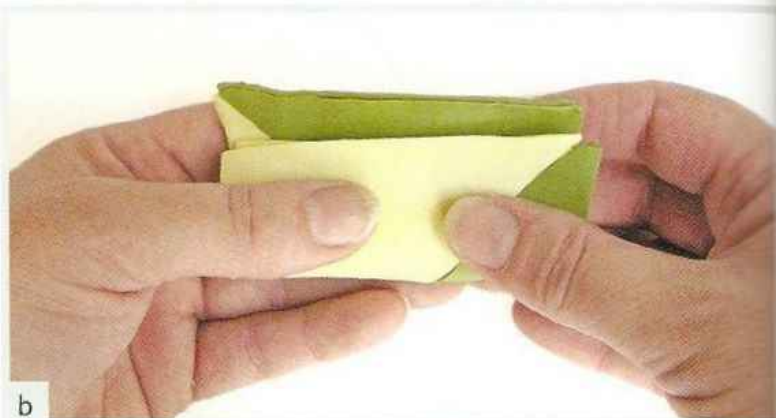
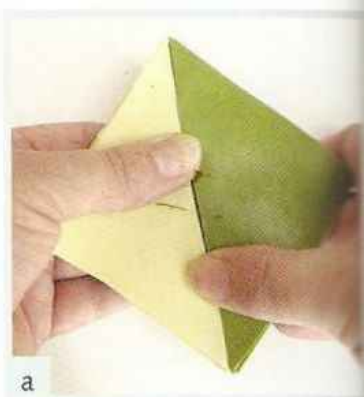
- Mix of 3:1 translucent clay to white clay and a little leaf green
- Leaf green clay
- Burgundy/purple mix
- Pasta machine
- Single-sided blade

## tasty ideas

*Always fold the clay in the same direction. Lines will start to appear, but these will fade as the process goes on.*



**1** Condition the clay very carefully and form a triangle from each of the two colours. The easiest way to do this is to cut out the same size square of each colour. Cut each one in half diagonally and double up the colours so you have two triangles of two layers. Press these together so that they stick at the join, forming a square (a).



**2** Fold the resulting square in half (b) and pass it through the pasta machine on the thickest setting (c). Repeat this once or twice more.





3 When you have folded and passed the clay through the machine several times, the shading appears to smooth into a perfectly graduated color. Fold again and cut the sheet in half along the fold (d).



4 Cut and stack up the pieces. Depending on the amount you have made, you may wish to cut and stack a lot of time (e).

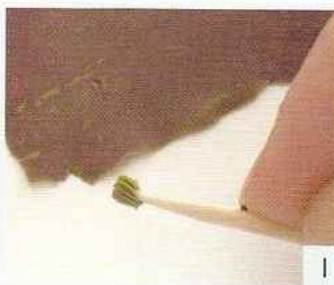


5 Squeeze the ends together and force the stack into a cube (f). (I use Skinner method 2 – see page 49 – to control the clay.) You may need to make the cube even flatter, depending on the quantity of clay you are using and the scale you are working at. Here, I'm working in 1/12 scale, so the material needs to be squeezed down to a depth of around 1/2 in (1–1.5 cm).

9 Take one of your little rolled pieces of clay and attach this little handle to the pointed end of the rolled-up piece, aiming to wrap the little round the end, so that they hold on well. Handle this stage as delicately as possible (k).



10 Then, using your tool or cocktail stick as a cutter, cut a tiny triangle from the edge of the sheet (l).



11 Attach this triangle – and two or three more – to the stem of the asparagus with the burgundy/purple colour (m).





# Celery

*A follow-on from the last project, with just one slight difference: you add texture to your strips, which must be as thin as you can handle (see the Tip below). Be as delicate as possible with these small parts, or you will lose texture and shape.*

## You will need:

- A mix of 3:1 of translucent to white clay
- Spring-green clay
- Piece of studding, or a screw thread cut from a bolt (see Tip, below)
- Dental tool or cocktail stick

### TIP

To create texture (see step 4) use a piece of studding from a DIY shop, or a screw thread cut from a bolt. If you can't cut the head off, buy a really long bolt and use it sideways, with the head over the edge of your table or working board. Just like any other vegetable, the colours are quite variable, so work from life if you can.

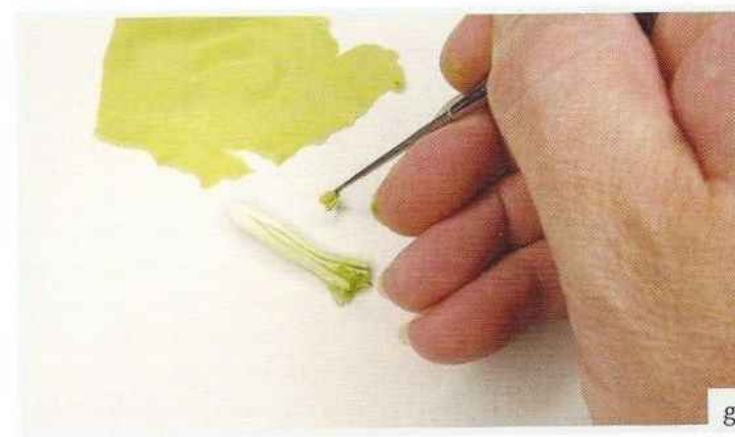


1 Divide the mixed clay, and add a little spring green to one half.

2 Make up a triangle of each of the colours and create a Skinner shape (see page 48) (a).

3 Take this down to a rectangular box shape with a depth of maximum  $\frac{3}{4}$  in (2cm). Using the middle, which should be the best shade, cut thin slices from this shape (b).





9 Remove your tool from the celery, leaving the leaves behind. Do this perhaps once more for each celery bunch (g).



7 Roll the texture into this. Don't worry if your material sticks to your surface – you can lift it with a sharp house blade before using (c).

8 For the celery leaf, slice the prepared strip into approximately 1/2-1/4 in (3-5mm) wide strips (d).

9 Roll a central core from a piece from a thicker slice, and add some of these strips to the outside of (e).

10 From a little of the semi-translucent green, make a very thin sheet, thinning it out gently with your fingers until it starts to tear (f).

11 Using a dental tool or cocktail stick, press little scraps from this sheet into the gaps between the stalks when you have 3 or 4 of these ready. To your dental tool, press them gently into a gap in between the stalks of the celery.

# Bananas



*To achieve the accurate detail and subtle colours needed, it is important to work from life. Nature cleverly repeats its simple and elegant forms: you just make a triangular cane which is stretched, cut and then put together to form a cylinder*

## You will need:

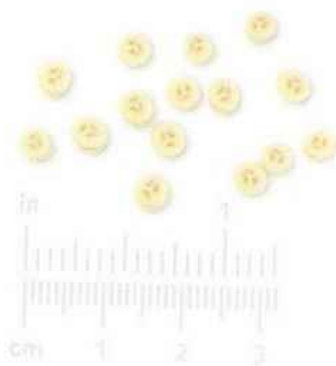
- For the central cane, to form the seed: brown clay
- For the surrounding 'wing' shape: mix of 3:1 semi-translucent clay to white clay, with a little yellow and brown clay added
- For the infill (main banana) colour: mix of 1:1 translucent to white clay + a touch of yellow and ochre clay
- For the outer part of the banana: mix of 3:1 translucent clay to white clay, with a touch of ochre
- For the skin: yellow and banana-colour clay

1

First, make the central brown cylinder, to form the seed and wrap it with a wing shape of semi-translucent clay.

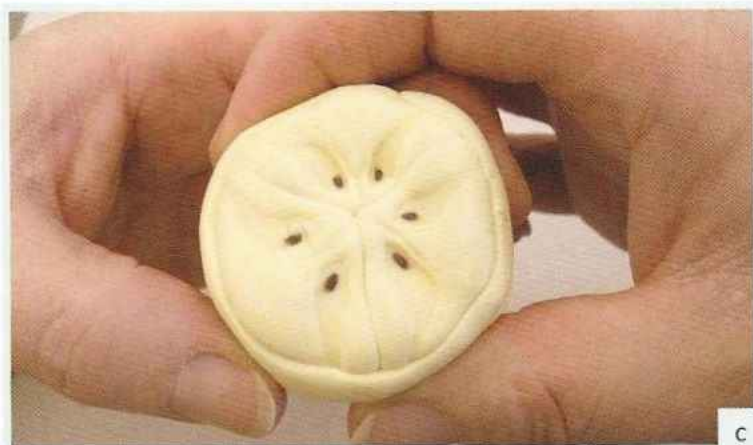
2

Infill with the lighter colour around the 'wing' shape – making sure there are no air pockets – and form into a fat triangular shape (a).

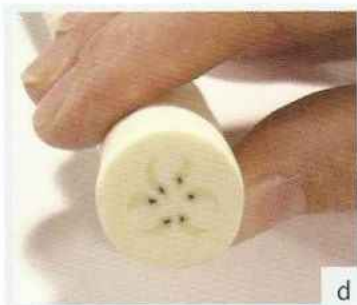




6 Cut the triangular shape into sections, then separate these into halves, turning one in each pair so that they reverse and form a diamond shape (C).

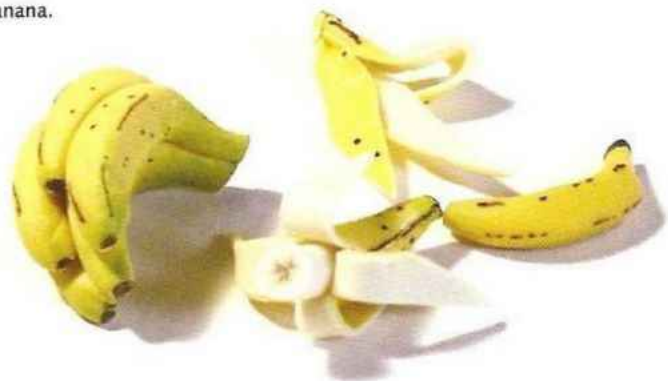


7 For the first sets of two sections from the round banana, then manipulating until you've filled the gaps. This may mean some reworking to ease the triangles together, as remember that it should be throughout the sections be joined together at both ends (C).



7 To make the skin, form a thin sandwich of yellow and banana colour clay and cut it into tiny, long 'fish' shapes. Join these together at the base and wrap around a small piece of banana cane. You can then curl the 'skin' back as far as you want, to form a half-peeled banana.

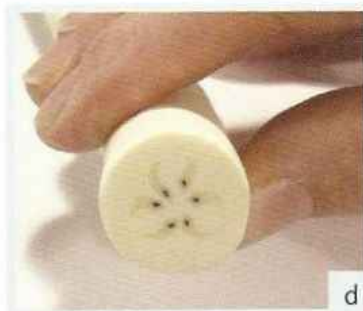
8 After baking you can apply the markings on the skin: first apply a very subtle brush of green to the end, then add the brown markings, either using a very fine permanent marker, or use very finely stippled acrylic paint.



Curve the triangular shape into corners, then separate these into three parts, turning one in each pair to the reverse and form a sandwich (C).



For the three sets of two segments from the round banana, then overlapping until you've filled the whole space. This may mean some reworking to ease the triangles together, but remember that it should be snug and the sections be joined together at both ends (C).

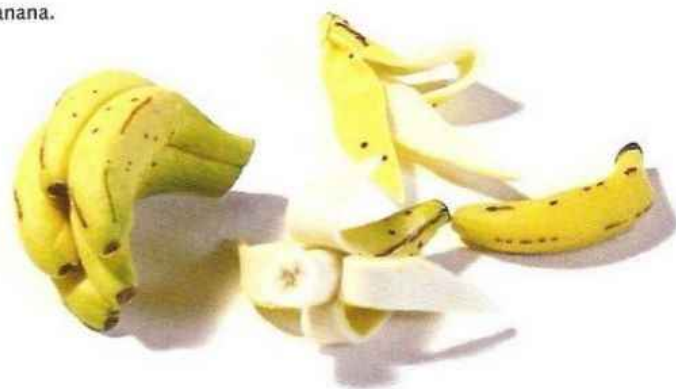


If you find the seeds are too small to see, wrap, put an extra layer around it, to get the correct shape. It won't look right if the seeds are too small to see enough to the centre (C).

Lengthen the cane a little and reposition the seeds again. When you are they look right, you can then rework to lengthen the cane to the correct size (C).

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# Watermelon

*Although putting tiny spots in a cane can be relatively simple, it is important to remember to make a proper cylindrical space for the differently coloured clay to go in, otherwise your spot will distort and flatten.*

## You will need:

- For the flesh: a full block of translucent red Fimo (or add a little red to another translucent clay)
- Knitting needle (or paintbrush handle)
- Pasta machine (optional)
- For the inner skin: a mix of 3:1 translucent to white clay; to one part add a very tiny 'tinge' of green clay
- For the outer skin: leaf green, with just a little navy added
- For the seeds: a dark purple mix using red or burgundy clay, mixed with navy blue. (For some clays, you may need to use a lighter blue and some black.)



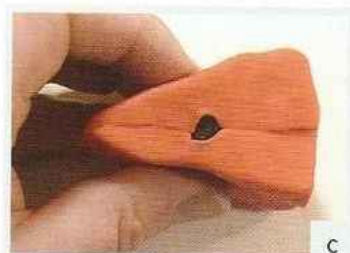
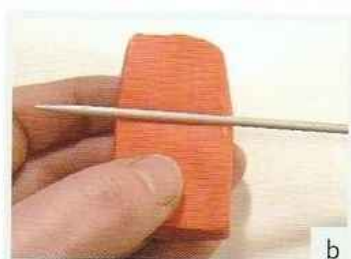
**1** 'Condition' the clay for the flesh, by mixing it very well. Take off a small piece – around a tenth of the total – and put it to one side. Form the large piece into a short, fat, triangular prism shape. Cut this shape in half down the centre (a).

**2** Indent a half cylinder groove, using a knitting needle or a paintbrush handle, in the same place on each of the two halves of the prism shape (this is so you can insert the cylinder of dark brown seed without distorting the shape too much) (b).

**3** Make a thin cylinder of dark brown or purple clay for the seed, and insert it into this groove, closing the two parts back together around it (c-d).

**4** When it is long enough, cut in half and put the two halves together, and then again so you have four pieces in one 'clump' (e).

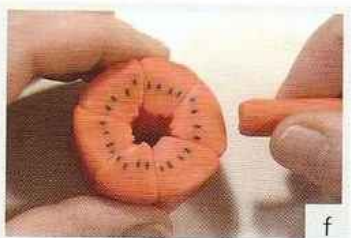




5 Then stretch all this again until it's around 7in (178mm) or more long. Cut the messy ends off and cut the whole thing into six pieces.



6 When put together, fill the centre of the circle with the saved bit of translucent red (f).



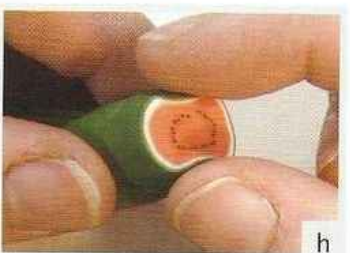
7 To make the skin, roll each of the skin colours into a strip but, make the lighter green a little thicker than the darker green one. Combine the two strips, and roll again (a pasta machine will produce nice even strips).

8 Wrap this skin around the main cylinder, cutting and joining as neatly as you can with no overlaps.

9 Lengthen this cylinder until it is around 1in (25mm) in diameter, then cut through the centre (g).

10 Close off one end by gently squeezing the end and 'persuading' the outside to close over the inside. I do this by rolling the cylinder gently between the thumb and forefinger of my left hand, while at the same time gently 'tweaking' at the end with the thumb and forefinger of my other hand (h).

11 Cut this end off, as if you were making just half of a watermelon, and close the other end in the same way.



12 Next, cut into the side of the melon to reveal the seeds. Do not cut end to end where you have just closed it, but start your cut between these two points and cut at 45 degrees to the ends. This may take a bit of practice, but you'll soon get the idea!

# Piel de Sapo melon

*As well as watermelons, you can create a range of different melon canes.*

*For this Piel de Sapo melon, I form the centre from a bundle of seeds made from a simple seed cane. The colour is simply wrapped very thickly around it.*

## You will need:

- For the flesh: a mix of 3:1 translucent to white clay and a scrap of green to tinge
- For the seeds: a little light fawn-coloured clay (the white chocolate colour mix on page 34) with a little ochre added and a wrapping of brown clay
- For the skin: leaf-green clay
- For the net effect: fine-mesh net plus light fawn or brown paint
- Craft tool or cocktail stick

## tasty ideas

*To make a melon with orange pink flesh, the translucent clay colours are very good. Use 2 parts translucent yellow to 1 part translucent red and just a little white to take the edge off the strong colour and the translucency.*





a



b



c



d



e

1 Make the seeds by wrapping a seed-like shape of champagne and covering it with a little brown clay (a).

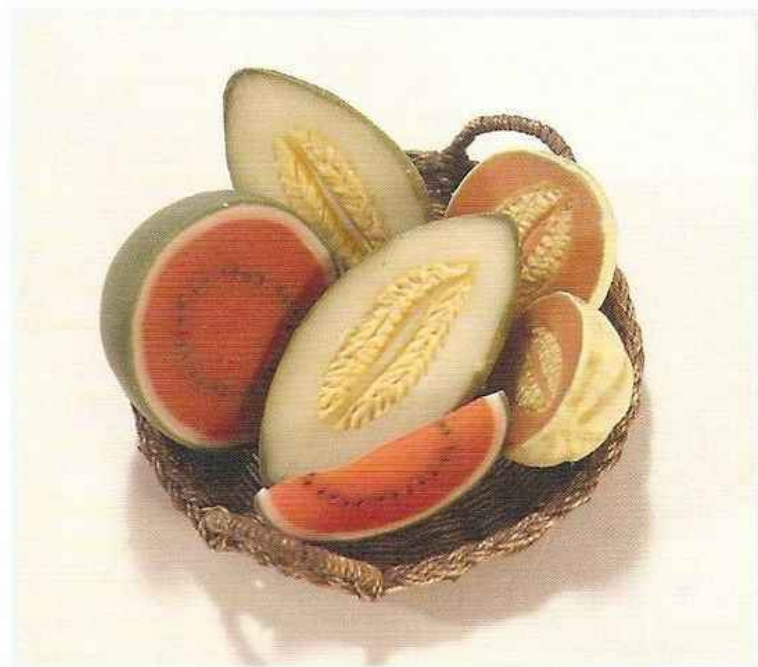
2 Make an oval cane with a small profile, so that you end up leaving the ends as more of a strip than the sides to form the American netball shape (b).

3 When making a half melon, immediately accentuate the seeds with a small tool (c).

4 Make the skin as for the watermelon, but to add the 'netting' effect on the outside of the Piel de Sapo melon, use a piece of fine-mesh net rolled into some light fawn or brown paint. Remove as much as possible of the excess that forms between the net and then roll the melon against the net. You can do this either before the over-setting process or after (d).

5 To make the lines, run the shaft of a craft tool or a cocktail stick over the surface (e).

*Several types of melon displayed in a basket made by Zara Thomson Ribeaud.*





# Strawberries



*Strawberries are an amazing natural phenomena. You can miniaturize just about anything using canes but there comes a scale beyond which you can't actually see the detail with the naked eye, and so you sometimes have to exaggerate a little.*

## You will need:

- Red through to a white and translucent mix.  
Strawberries vary greatly in colour from dark red through to a slightly orangey pink. It is best to mix from life.
- Green for the tops, either green polymer clay or cold porcelain (see page 66)
- Talcum powder (or cold cream/cooking fat)
- Acrylic rolling pin
- Diane Harfield metal plate cutter 131

## See also:

Cold porcelain techniques

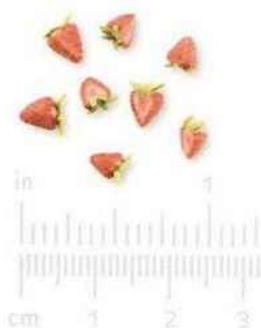
– page 146

Diane Harfield cutters

– page 16

## tasty ideas

*Why not use your strawberries to decorate your other creations, such as fruit tarts (see page 111), heart-shaped cakes (see page 126) and cheesecakes (see page 132).*





a



b



c



d



e



f



g

The simplest colour in the very centre should be a semi-translucent pink. If you work from life you will see many different colour forms for this centre which you can experiment with (e).

**6** 'Stretch down' the resultant large cane to as small as you can get away with, yet still see the detail. If this is 1/12 scale, you might need a magnifying glass to see the results (f)!

**7** You can then either make canes for slices, or you can make tiny half strawberries and put tops on them (see following page). Indent the centre of the strawberry (g).

Roll a thinner shade rectangle (approx 40/10).

Press the rectangle into an (approx) rectangle shape. If you can, twist it round, or you could do it afterwards (b).

Then use an inset technique to convert the into the side section (c). I use this blade, which is not a usual single-sided (d). I don't want the (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) 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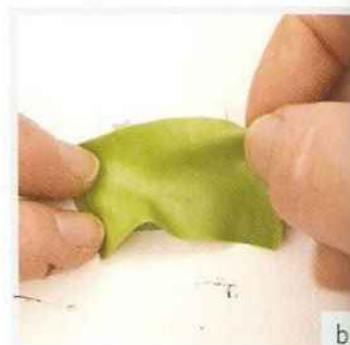
## Making strawberry tops

You can make convincing strawberry tops using the Diane Harfield metal plate cutter 131 (see page 16). These cutters were designed for use with cold porcelain but, although cold porcelain air dries, it will also tolerate baking along with polymer clay; alternatively, you can make the tops from polymer clay.

**1** If using polymer clay, dust the cutter lightly with talcum powder, as a resist; but, if using cold porcelain, use cold cream or a block of white cooking fat instead (a).



**2** Roll a very thin sheet of your material using an acrylic rolling pin, and lay over the imprinted face of the cutter (b).



**3** Use the same rolling pin, roll firmly with even pressure over the cutter (c).



**4** If your material sticks to the rolling pin you can lift it carefully off, using a single-sided blade, but never use blades or metal implements on the cutter, as you will damage it. If the material stays stubbornly on the cutter, clean out with a cocktail stick and then re-apply the powder or cold cream (d). The tops can be attached using liquid polymer (see page 94).





# Kiwi fruit

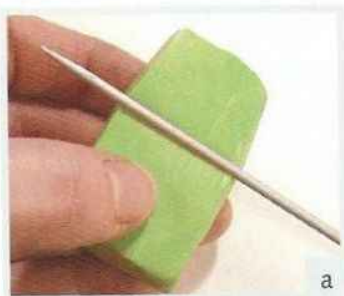
*If you look carefully at a kiwi fruit you will see that it is made up of many sections, each with a tiny seed in. In fact there are several seeds in each section, but you only need to make one small cylinder of purple or black.*

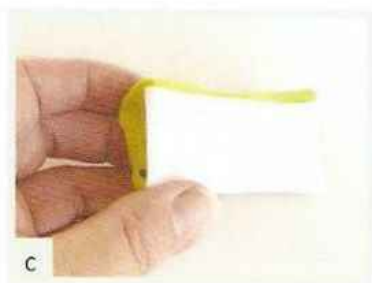
## You will need:

- Main flesh colour: translucent spring-green, made with translucent and just a little spring green mix. The spring-green mix varies according to different clays, but 8 parts yellow to 1 part blue is approximate.
- Seeds: purple or black
- White clay
- Centre: translucent and white mix of 3:1, and a tiny amount of spring-green mix used for the flesh
- Skin: two parts ochre one part chocolate and a small piece each of leaf green and orange
- Dowel, pencil, knitting needle or paintbrush handle
- Brown scenic scatter

1 Carefully press the flesh colour mix into a v-shaped strip. Cut in half and make an indentation with a dowel, pencil knitting needle or paintbrush handle (a).

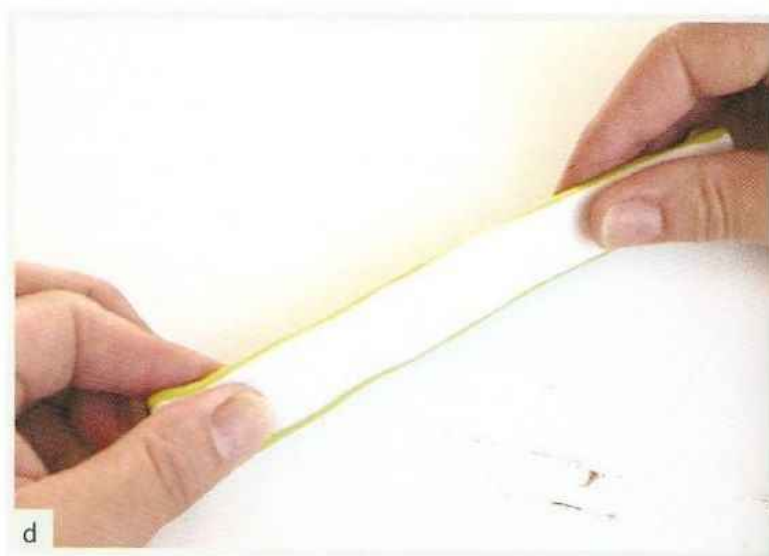
2 Put a cylinder of the purple or black into this hollow for the seed and put the two pieces back together again. This indentation is to avoid squashing the seed shape (b).





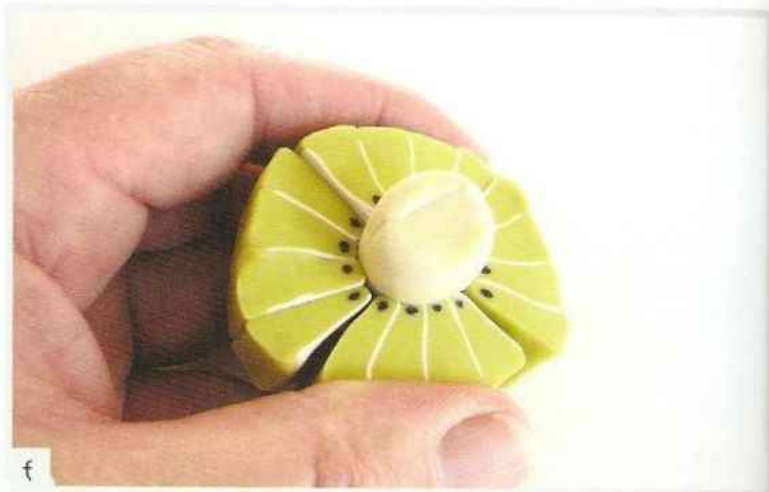
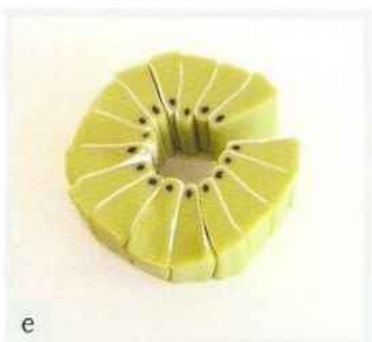
3 Add a strip of white to one side, to highlight the sections – an example of the slight exaggeration you have to practise when making really tiny fruit (c).

4 Using your fingers to control the shape, while keeping it as a definite triangular profile, lengthen the whole strip by a combination of squeezing, smoothing and pulling. I'm afraid you can't roll this one! Cut it in half, put the two pieces together and lengthen again (d).



5 When you have enough length to cut it into about eight pieces of this doubled-up piece, cut and stack the sections together to form a circle shape, or a hollow cylinder. Try not to get any air trapped between these sections (e).

6 For the centre, make a small cylinder of a more opaque, paler green, using a mix of translucent and white plus a tiny amount of the green mix you used for the flesh. Do not make this cylinder too big (a mistake I often make). Wrap the prepared outer parts around the central cylinder (f).



If you want to make whole kiwis, you can add the caramel-colour here at this stage, made from two parts ochre, one part chocolate and a small piece each of leaf green and orange. Alternatively, if you want kiwis both with and without skin, you can lengthen the cylinder to twice the length, by squeezing the centre quite firmly and then working outwards (g). Cut it in half and then add the skin to one half.



g

8 Don't roll the cylinder until you have squeezed it fairly firmly all the way along, otherwise all your carefully prepared sections will move against each other and cause a jumble.

9 Make the tiny fruit by enclosing the end of the cylinder and then cutting a piece off and closing the other end (h). Don't forget that a kiwi fruit is not quite round but rather flattened (i).



h

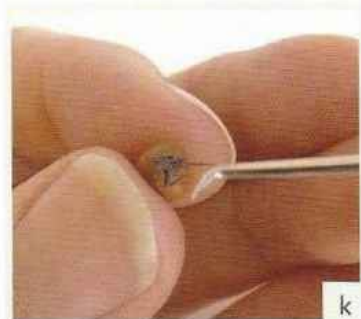


i

10 A hairy appearance can be added by rolling in brown scenic scatter before baking (j).



j



k

11 Finally, I noticed the ends have a tiny 'wiggly' dark brown flower part, so I added that just before cutting my kiwi in half (k).





# Complex caning

**N**OW WE'RE ON TO SOME OF THE DIFFICULT IDEAS WHERE YOU have to think hard about what face you want to look at on your cut food. We're building up layers and really taking time to get the colours and proportions right.

Tomatoes are first because colour and proportion are vital here and it took me several years to be able to reproduce these elements reliably. You should find it easier because I've made the mistakes for you. But still be aware of how much of the tomato is the centre, how much is the seed area. It's all too easy to make the tomato flesh too thick – no more than one third of the radius should be the outer flesh. The centre and the seed parts are also around a third each, and the cane is made using two identical halves. It follows, therefore, that you only need to make up one half, lengthen and cut it. However, you can also make a more Mediterranean tomato design by using thirds as in the banana cane (see page 58) or even four or more sections.

The leeks technique is one of my favourite accidental inventions. It occurred because after years of making a shaded block I switched to building up strips. I accidentally stacked a strip of shaded clay badly. This just goes to show that you learn more from your mistakes than you do from your successes!



# Tomatoes

*There was a time when every tomato cane I made was different and only one of three canes worked. I've made so many now that they are getting more predictable! For this reason, I have suggested this as an advanced project.*

## You will need:

- Polymer clay
- For the flesh: translucent, red, orange and white. This is about 50% translucent with red, orange and a little white. I often throw leftovers from other projects into this mix and have never mixed it without, so I don't have an exact mix.
- For the seeds: pale yellow, dark green, translucent
- For the middle core: flesh pink
- For the skin: opaque orange/red

## tasty ideas

*You can make whole tomatoes with the same cane, just by enclosing the end of the cane, cutting off as if it was a slightly large tomato, and closing off the other end of this piece. Of course your hard work on the inside won't be seen, but the advantage is that your tomatoes will be the exact same colour as the halves, so it's not a complete waste of time making whole tomatoes this way. To make the green tops, follow the instructions for strawberry tops on page 66.*



1 Pale yellow half-wrapped with a very thin strip of dark green forms the seeds – the dark green adding a contrast to accentuate them. Use translucent for the area around the seeds. I used to use a translucent red for this when working from life but I have found plain translucent to be more effective (a).

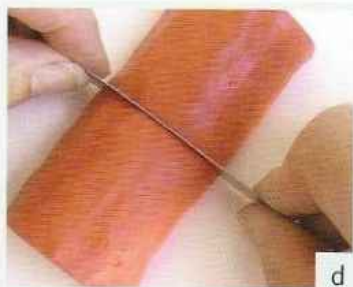
2 Flesh pink forms the middle core. Place the seeds from a lengthened cane around it (b). (You only need to make one half and cut it in half later to form the repeat.)



3 Layer the tomato flesh all the way around the seeds and lengthen the half cylinder (c).



4 Cut in half (d).

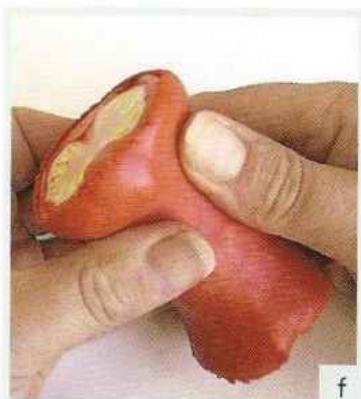


5 Place two halves together to form the whole tomato shape (e).

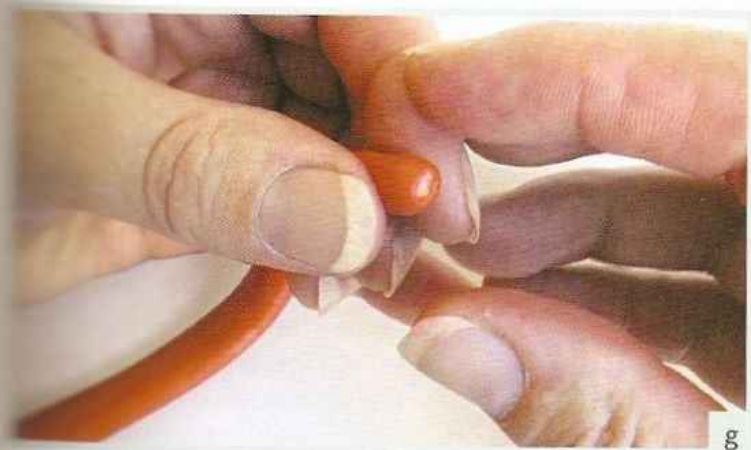


6 Wrap the cane in a very thin skin of the opaque colour and lengthen (f).

8 When I have cut the half tomatoes I indent the seed markings a little before baking. Of course, as with many other canes you can slice them unbaked or baked or you can also make wedges by cutting a small piece of cane in half down its length and then making a diagonal cut one way and then the other to form a tiny tomato wedge. Of course, every other piece will be discarded.



7 Close the end off by gently pressing the skin together until it joins. Then press gently into shape if necessary. Don't smooth it too much because you may wish to see where the seeds attach a tiny stalk. You can then cut this as half a tomato (g-h).





# Red & green cabbage method one



*For these cut red and green cabbages the colour becomes so thinned that particle size of the clay becomes an issue, whereas in the Squid project (see page 40), the problem was used to advantage to create a mottled surface colour.*

## You will need:

- Deep purple mix – I advise actually buying a red cabbage to take a really good look
- Mix of 3:1 translucent and white clay
- Lolly sticks or coffee stirrers for guides
- Pasta machine – optional
- Icing nozzle
- Leaf-shaped mould available from cake-decorating shops

## tasty ideas

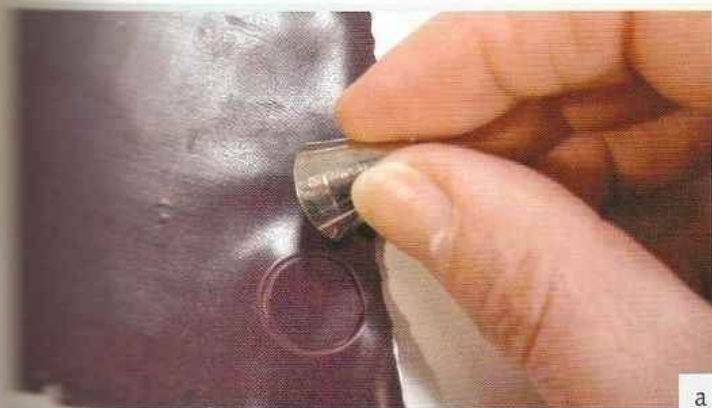
*A couple of tips for rolling really fine sheets are to use a straight-sided glass bottle as a rolling pin and a ceramic tile as a board to work on.*

*Both your hands and the polymer clay need to be warm and scrupulously clean. However, your tools need to be cool and absolutely dry.*

**1** Roll the purple out as thinly as you can. Add it to both sides of a thicker layer of translucent and white, press together and roll again until you get really fine sheets. You will need two 'grades', one very fine and one even finer. If you roll only once in each direction and pick the material up and move it between each roll, just like pastry, you should avoid the material sticking to the surface. Lolly sticks and coffee stirrers are good guides for thickness, if you place one at each side of your work and roll over them. It is best to use a pasta machine for this type of work. Even so, cleanliness is still the most important consideration, since you are using two dramatically different colours. Cut out a couple of circles from the thinnest clay (a). I use an icing nozzle because it is a little blunt, and has a tendency to 'seal' the two purple layers together as it cuts.

**2** You will need to further stretch these circles until they are as thin as you can possibly get them. Cut one edge at a slight angle, to reveal the white inner part. This will be pressed against the stalk (b).





a



b



c



d

Make a tiny cone of the white material. Then add your circles to the cone to form a sort of compact ball (c).

Take a couple of leaves from the slightly thicker sandwich. The white bit should be added to the side of the cone to the top layer as possible, making sure the white of the leaf meets the white of the cone. Expose some of the white and thin the leaf again but remove the white edge (d).

5 Add another couple of leaves of the very fine and then start to build up outer leaves by using the thicker sheet and making several leaves which you press in a leaf shaper (available from cake-decorating shops) (e-f).

6 Refrigerate the ball and cut through the middle before cooking. Alternatively you can cut it warm straight out of the oven. Do not try to cut it when it's cooked but cold, as this can be extremely dangerous.



e



f



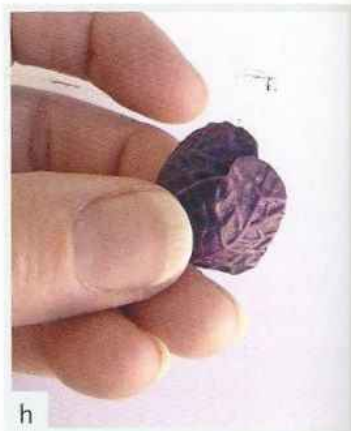
**6** You should end up with a long cane of around  $\frac{3}{4}$ in (2cm) width. You can cut this into strips about the length of a video box and store most of it. It should be usable for a relatively long time.

**7** Close the cane at the end. it is not necessary to make a perfect join because it will be covered by separate outer leaves. Cut this end off to form your half cabbage. Don't cut too large a piece off or it will look a little strange. You can just 'tweak' the end of the stalk to lengthen it for more realism but be careful not to distort it, especially if using the softer clays.

**8** Use a dental tool or needle to accentuate the lines on the face of the half cabbage. To make a slice, score into the cabbage deeply and cut the

slice as thin as you can. If some parts appear to want to break away then let them – it looks more realistic that way (g).

**9** Form the outer leaves in exactly the same way as method 1 on page 74 and wrap your half cabbage, with two or three leaves. Trim off the clay that overlaps the edges carefully (h–i).





## Direction of cut

Whatever fruit or vegetable you are trying to copy, you should be aware that cut in one direction it will look one way, and cut in the other direction it will look quite different. This causes problems for the caner because we are only simulating the whole, showing it as it looks cut on one plane. If our cane is cut in another plane we won't achieve the result that we want.

The only answer to this is to make different canes for each plane you want to show. For instance, for a red cabbage you can make one cane for the face with the stalk down the centre, but you'd have to make quite a different one for a cut across the middle, side to side.

That can be done, but what if you want to make it appear that your object has been cut in both planes? A little careful patching would be needed in this case to put a 'veneer' (not to be confused with a veiner!) from one plane onto the other. Where you have to be careful is at the join,

where you have to thin the veneer almost to infinity. The only problem you have then is putting a jacket on it. That is to say, literally, an outer leaf in the case of cabbages. This is easy with red cabbage because the leaf will appear the same in both planes as it does in real life. With green cabbage, because you are making a veined leaf cane and not a sandwich, just make sure you cut the outer leaf really thin and then the difference in planes won't show. This is when you use a 'veiner' to impress a leaf pattern onto your outer leaves.

*An actual cabbage, cut in both directions, reveals how nature gives us many exciting three-dimensional challenges.*



# Leeks

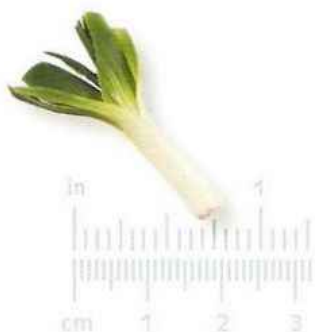
*This is quite a tricky way to make leeks, but very effective. You can also use a shorter leek cane to make spring onions. This extension to the Skinner shade technique shows how to incorporate a third colour into a single, shaded strip.*

## You will need:

- White and translucent mix (1:1)
- Spring green
- Leaf green
- Pasta machine
- Coarse sandpaper

## tasty ideas

*Leeks come in all sizes so even in 1/12 scale 1in (2.5cm) is not too large even for a trimmed leek. They can even be much larger.*



**1** To make a shaded strip, first put together three triangles of clay. One white and translucent mix, one spring green and one leaf green. Those familiar with the Skinner shade technique (see page 48) might be surprised by the third colour used here. This is because a shade from dark green through white produces a rather strange and unrealistic light green in the middle (a).

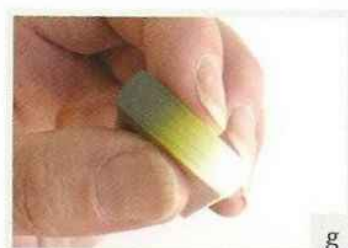
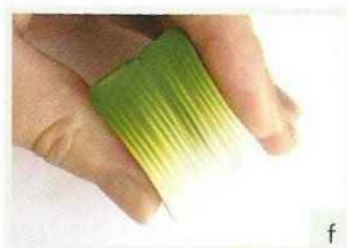
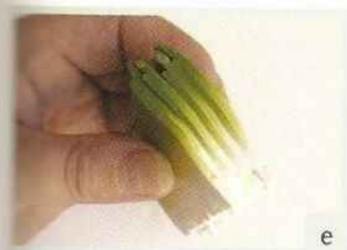
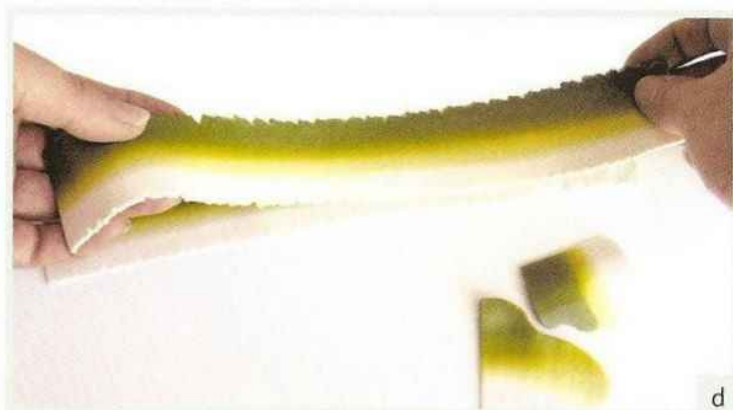
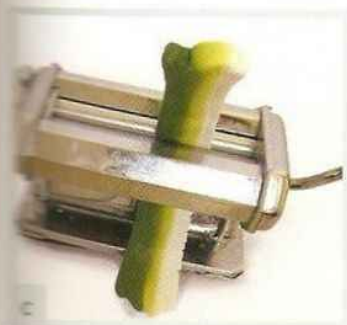
**2** The 'shade' is produced by folding and rolling, always in the same direction until you have achieved a gradual shade throughout (see also asparagus on page 52). When you have your shaded strip, fold it up and cut to let the air bubbles out. Carefully squeeze and press the resulting piece to narrow it (b).



**3** Pass the narrowed piece through the pasta machine (or roll out) again to produce a very long thin strip (c). Then cut it into pieces and stack up these pieces one on top of the other, deliberately misaligning each alternate piece (d).

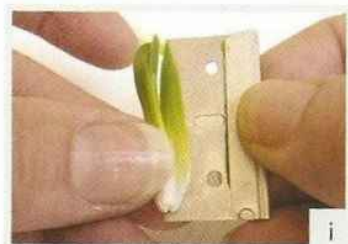
**4** Cut and press together several times. As you can see, this produces a combination of shading and stripes (e-f). Just like a real leek!

**5** You will probably need to add a little extra white to the bottom and green to the top of this stack. Squeeze and lengthen the strip.



Thin the resulting rectangular cane enough to produce the right size for individual leaves. That means the end would measure around  $1\text{in} \times \frac{1}{4}\text{in}$  (2.5cm x 0.5cm) (g).

**6** You can then cut into strips (h). Normally you'll cut them as thin as you possibly can but for the centre of the leeks cut a thicker piece and then cut that into three or four pieces for the centres. Roll one centre piece to take off the edges and make it cylindrical and cut into the top to simulate individual leaves. You can then add extra single pieces to the outside and wrap them round (i). It then pinch each leaf in to fold like a trimmed leek. Two extra leaves can be enough, but you could use four or more.



**7** Tap the bottom of the leek on a piece of very coarse sandpaper (j). You could brush the very end with brown powder to simulate mud on the root part.





# Unusual canes

**T**HIS SECTION INCLUDES SOME OF MY MOST DIFFICULT AND unusual canes and, for the reasons listed below, I think this whole section is most suitable for the advanced miniature food maker. The really adventurous will definitely enjoy battling to control the clay, win or lose – the rest will just be frustrated.

Empty spaces are the most difficult thing to add to canes, as caning and air don't mix: as soon as you start to lengthen polymer clay, it wants to squash into a uniform shape, losing definition. So, for shapes like the mushroom and star fruit, the clay has to be strictly controlled.

You may need to experiment with unfamiliar clays to see which is the best for these canes – your usual preferred clay will not necessarily be the best, as the clay must stick together, without being 'sticky'. I have used Du-Kit clay for many of the projects in this section, as it is both durable and keeps its colour, even at the higher temperatures needed to cure to a strong flexible cane.

The only minor problem with Du-Kit clay when used with a pasta machine is that it can 'shred' in the machine, especially when over-conditioned, wherever there are air bubbles, or if the machine has already got some material stuck to the underside of the rollers. To minimize the problem as much as possible, keep the underside of the pasta machine rollers clean by wiping with dry kitchen roll, and slice the clay straight from the pack. The best two projects to start with are the olive canes and the mushroom cane. Don't attempt the rest of the projects unless you can take disappointment!



# Black & green olive slices



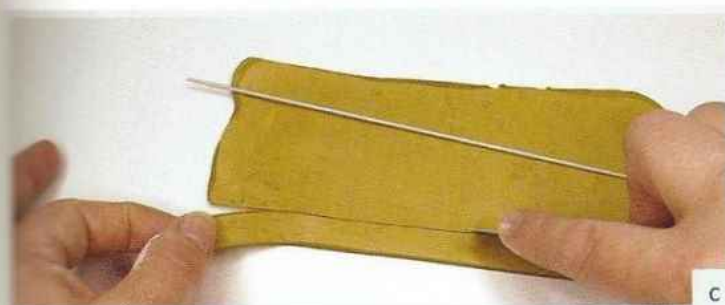
*You can make olives using a simple sheet of olive-coloured clay, but the insides of both types of olive are a lighter colour than the skin, so I've formed a thin sheet which is shaded from one colour on one side, to a lighter shade on the other side.*

## You will need:

- For green olives – two shades of olive colour, one deep and one much paler clay
- For black olives – black and brown clay
- Pasta machine
- Thin metal knitting needle
- Talcum powder

1 Make a Skinner blend in the clay colours for black or green olives (see page 48). Form a graduated stack from the blended clay (see page 49 Skinner shade method 1). Roll your Skinner shaded material into a thick sheet using the thickest setting on your pasta machine (a–b).





c

2 Cut a strip off the sheet of clay, around half a centimetre wide. The edges of this strip should be cut slightly on an angle so that when wrapped round the needle they meet perfectly (c).



d

3 Powder a thin metal knitting needle with talcum (baby) powder (d).



e

4 Wrap the clay around and stick it together neatly, without overlapping – smoothing the join to remove the obvious line will help the clay to stick together properly (e).

5 Cut down the middle of the soft clay (trying not to scratch the needle too much) and slip the two ends off the needle.



f

6 Roll each end down to scale (this is of course really quite fine) and place on a ceramic tile to bake (g).

7 The hardened canes can be sliced to make olive slices for pizzas and salads, and for the filled jars on page 98.



g





# Mushrooms



*This cane, although unusually shaped, is comparatively simple to make and will get you into the habit of keeping the contours of an irregularly shaped cane.*

*You can use any of the polymer clays, but they need to be well conditioned.*

## You will need:

- Brown clay (see tasty ideas below)
- Light clay

## tasty ideas

*Strangely, I'm often asked for a recipe for mushroom colour, but I do not have a definitive answer – you can go from something the purpleish/brown side of flesh pink to a really dark brown, but make sure you add some translucent to your mix.*

*I use 1:1 translucent to coloured clay.*

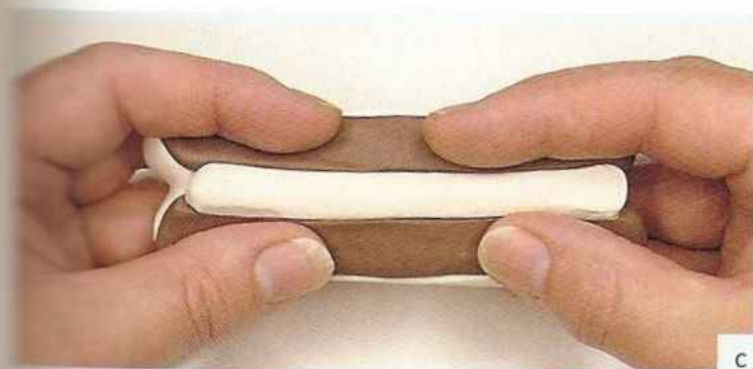
*Slice real mushrooms of different shapes and colours in half and see what the cross-section looks like. Note that, even with standard mushrooms, there is a variation in colour, size and shape from white to brown. For simplicity, I just make the centre section, that's to say, a cross-section with a piece of stalk attached.*



**1** Form a fat half-moon cane of the light colour, and a rectangular cane to sit inside it.

**2** Form some brown clay into a thin triangle, to fit within the space between the stalk and body (a).

**3** Decide how much stalk to leave, i.e. how much of the shape to fill in. The more you leave sticking up, the trickier it is to keep the shape (b).



c



d

To lengthen this cane, hold tight to the shape you have and firmly vibrate and stretch the material by 'wiggling' and pulling (c-d).



e

You can bend the cane backwards and forwards as well, to help the stalk to stretch (e).



f

You can even use the force of gravity to help you. But do try to stretch it evenly. As it starts to stretch you'll need to pull gently along its length (f).



g

Try not to squash all the definition, but curling the edges inward a little when you've nearly finished just makes a closed-cup style mouthpiece, so you can also try to encourage that (g).

# Bell pepper slices

*Du-Kit is the best clay for this project, as some of the others are too brittle when baked, or don't stick together very well. To minimize shredding when using the pasta machine, avoid getting air in between the clay as you fold it.*

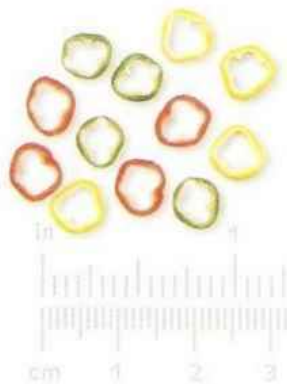
## You will need:

- Sheet of clay in your chosen colour, either shaded through or sandwiched with 3:1 translucent/white mix
- 3–4 of the narrowest metal knitting needles, in at least 2 slightly different sizes
- Pair of pliers if your needles have plastic tops on them
- Goggles (essential)
- Pasta machine
- Masking tape (as narrow as possible, or cut down a wider tape)
- Sharp, single-sided blade

## tasty ideas

*Whatever colour peppers you decide to make, this cane – like the olive one – is improved by making the sheet a Skinner shade from coloured outside to white in. If you find this too difficult, you can just sandwich the two layers together. Look at a slice of bell pepper and you'll see that there's an almost white part which reaches from the outer flesh towards the centre.*

*I use a mix of 3:1 translucent to white clay, tinted with a little of the coloured clay, for this inner mix.*





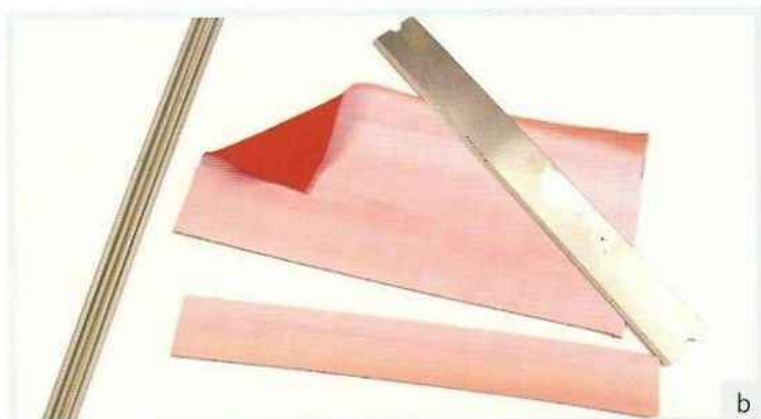


Wearing goggles, to keep flying debris from your eyes, use the pliers to remove any plastic tops from the knitting needles. You may have to go right through the middle with the wire-staple part.

Prepare your sheets using the Swedish method on page 49. See the book project on page 84.

Take three or four knitting needles of similar, but slightly different, sizes together at the two ends in the centre (a). Smooth a chosen colour mix into the gaps between the needles. Cut thin strips of the coloured sheets. You will need to gauge the thickness you need and alter it if it isn't quite right (b).

Wrap the clay around the needles and join the two sides together without overlapping. Smooth it down carefully. Do this in two rows leaving the edge and centre uncovered (c-d).



5 Once baked, remove the canes from the needle supports, grab the two ends very firmly and twist in an opposing motion, one way and then the other, to help to loosen them. Taking the masking tape off the ends when it's still slightly warm is easier than when it's completely cold, but be careful you don't burn yourself. Then pull firmly apart, making sure the needles do not point towards your, or anybody else's, body. If only one end comes off, remove the centre tape and pull the needles out of the other half, one by one (e).



6 To slice the canes you really need a fresh sharp single-sided blade. And a single sideways cutting motion works best. Make sure you're using a non-slip cutting board and that you keep your fingers well away from the blade.



# Starfruit

*This last project in this section is a real test! You will need to have to have some experience of making square or triangular canes to attempt the starfruit and you must be very patient and fairly dextrous.*

## You will need:

- Main colour: translucent, plus a very small amount of green and yellow just to 'tint'
- White mixed with a little translucent for the line down the middle of each section and round the seed
- The seed part is 50% translucent and 50% white enclosed in a thin skin of dark brown
- Translucent with a tint of the same green/yellow for just under the seed, but this isn't absolutely necessary
- Outer skin, make up a spring green, without any translucent

## tasty ideas

*The best clay to use for this project is Kato but Premo will also be fine and possibly Du-Kit. Soft Fimo translucent will not work at all as you lose the definition of the stars completely. I use Fimo for the skin because it is more opaque than the Kato colour range; if you wish to use Kato for the skin as well, you will need to make a thicker skin to get enough density of colour.*



**1** Form a diamond shape and insert the seed shape (white surrounded by brown) into the centre of the lower half of this (a). The seed is nearer to the centre than the edge of the points on a starfruit. To be more realistic you may see a seed in only one or two of the sections on any one cut. This would mean you making two separate canes. One with a seed and one without. Matching up the sizes of the extended canes could then cause problems. As with the banana cane, for simplicity, I'll make only one cane, thus having a seed in each section.

**2** Cover the top (longer half) of this diamond with a green skin and the shorter with the white mix (b). Lengthen this cane, keeping its shape. Sometimes you need to bend square and triangle shapes this way and then to start the lengthening process (c).

**3** Once lengthened to the desired size, remove the ends and cut the resultant cane into five equal parts (d).



a

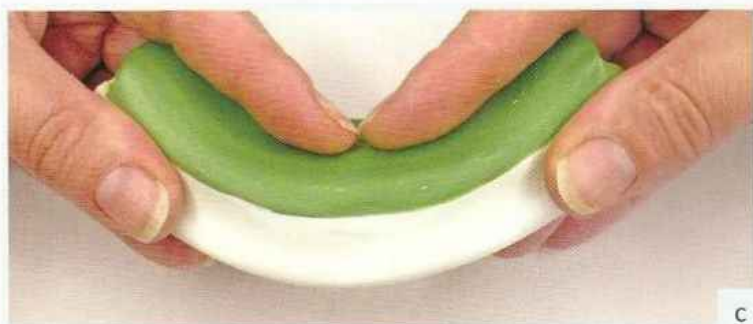


b

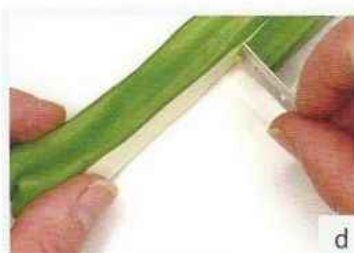
Join the parts together inserting pieces made up from scrap clay cut from the ends (e). Take a lot of care with this joining, because if the pieces aren't an even size or the pieces don't stick together, the whole cane will be ruined.

Gently start to pull this cane, holding the ends with all five fingers of each hand between the sections (f). You may need periodically to let go and start to tug, or 'wiggle' bits that aren't lengthening evenly (g). Don't forget gravity can be helpful, so touch the edges as little as possible throughout.

Make wholes and halves of the cane by rounding off the ends as done on other canes (see kiwi fruit on page 88). Just bake and slice it (h-i).



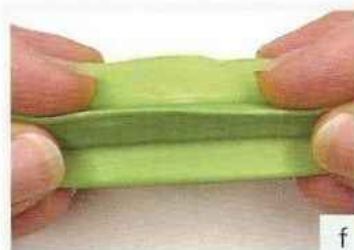
c



d



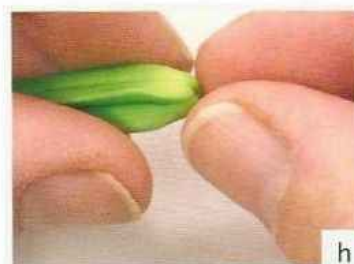
e



f



g



h



i



# Liquid polymer

**L**IQUID POLYMERS, SOMETIMES REFERRED TO AS 'LIQUID POLYMER clays', are liquids which harden in the home oven – in the same way as ordinary polymer clays – into a solid, translucent and flexible plastic. They are based on the same materials used for heat-set fabric-printing inks, are often called 'liquid transfer media', and have been largely marketed for that purpose. There are currently three brands on the market: Liquid Fimo (also known as Deco Gel), Liquid Sculpey and Kato Liquid Poly. For the miniaturist, however, this is the least of their uses, as you will see throughout this section.

I have only included techniques here that refer directly to food making and display items but, as a miniaturist, be open-minded. Once you have learned the techniques, think how they can apply to other models. I have used liquid polymers successfully to make simulated stained glass and even moulded miniature false teeth. Think how good they would look embedded in a miniature apple!



# Liquid polymer techniques

*Liquid polymers come in a translucent, uncoloured form, and can be used to simulate any poured liquid, or semi-liquid material. I'm still experimenting with these materials, but here are some of my favourite applications for miniature food.*

## As a transfer technique

I have had mixed results with liquid polymers as a transfer technique for miniature use, but in my limited experiments Kato Liquid Poly was best at picking up the colour from my inkjet on my paper. Each brand has instructions for use, but very simply, you apply the liquid polymer over the printed paper and bake the whole thing in the oven just as you would ordinary polymer clay. You then remove the print from the oven and soak away the backing.

Items such as the cheese labels below can then be applied to a disc of ordinary polymer clay, in this case, white, to produce a fairly realistic result. However it is worth mentioning that an image printed on paper can be applied directly to unbaked polymer clay and smoothed down, left to stand a while, and then baked. The results can be as good, if not better, than the liquid polymer transfer technique.



*You can use liquid polymer as an oven-hardening glue for many projects.*

## As an oven-hardening glue

I use liquid Fimo to attach tiny parts to ordinary polymer clay. For example to attach tomato tops to polymer clay tomatoes. Use unbaked clay tomatoes and pre-baked polymer clay, or dried cold porcelain tops, which will tolerate baking even though it is air drying. Add a tiny drop of liquid polymer to the top of the tomatoes and press the tops into them. A little liquid polymer on your tool will help you to pick up the tiny tops.

*Below: food labels created by using liquid polymer to make transfers.*



## To simulate jellies, mousses & blancmanges

The lack of translucency can be an issue here, especially as to make a jelly you need a flexible mould. The materials then need baking in the mould and this can leave a matt finish which needs varnishing. However, for blancmanges and mousses the polymers used in moulds are perfect. They aren't as noxious as resins, nor as prone to getting dirty as the meltable gels.

## Liquid polymer & inclusions

Items can be added to liquid polymers to make a textured material such as caviar. See the mince pies project on page 104 and cheesecake on page 132. Inert powders can be added to make a thicker mix – see royal icing on page 100.



## To make a 'sticky mix'

Ordinary polymer clays can be added (by grating and mixing, using a pestle and mortar) to liquid polymers to create a range of materials from a thick liquid to semi-solid. See the toffee apples project on page 106.

When mixing down using a pestle and mortar add the liquid polymer drop by drop. This can be time consuming but is the best way to ensure a smooth mix. Otherwise you may have to wait days or weeks for the clay to dissolve into the liquid polymer sufficiently. Part-baked and ground or grated clay can also be added to make a thicker or textured mix.





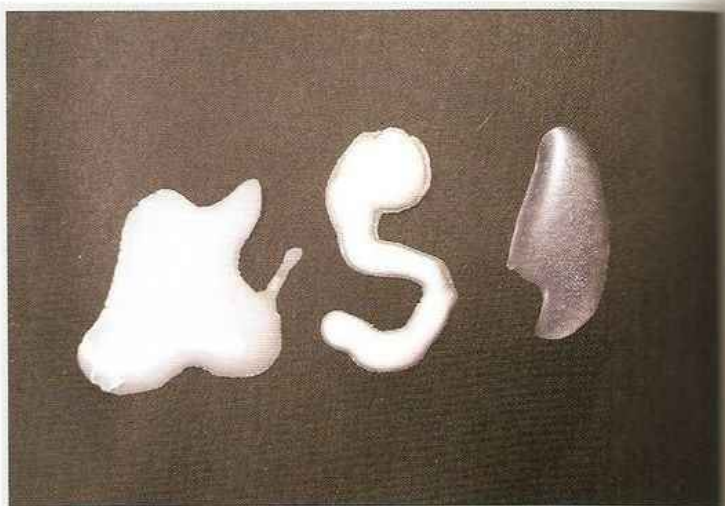
## Liquid polymers to simulate water

This effect is not easy to achieve as the material can often look a little cloudy. The thicker it is applied the cloudier it looks. I have had most success with Liquid Fimo for this. Leaving the liquid polymer until the minute bubbles settle out after pouring does improve the transparency.

### In moulds

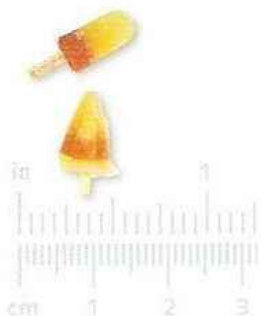
Liquids, because of their ability to flood into the smallest of spaces, are particularly useful for picking up really fine details. The mould must be filled with the bottle and all air should be squeezed out of the top of the bottle before application, to avoid air bubbles.

I've used liquid polymer for moulding items which need more than one colour, but where conventional polymer clays would look wrong, or show a distinct crack between the colours. Between colours the liquid polymer must be baked for a short time to prevent the colours from mixing. See ice lollies project on page 108.



*Above: Kato, Sculpey and Liquid Fimo on a dark paper background, showing translucency.*

*Below: liquid polymers can pick up fine details in moulds particularly*



## Using paints & pigment powders to colour liquid polymer

Because liquid polymers are oil-based you cannot use water-based paints and stains to colour them. The water would either settle out of the material or, worse, it could be trapped within the material during baking and become hot and almost explosive.

Oil colours however can be used, are very reasonably priced and you only need a little to add colour to your material. The cheap sets of oil colours do not have the right crimson for many of the projects but you can buy this separately from art shops. Don't overdo the oil paint otherwise you alter the quality of the liquid polymer.

A little titanium white can be used to make a colour more subtle and opaque but if you want a bright and translucent shade you should use just a little of the main colour.

You can also use oil-based liquid tints, the kind which are normally used with resins. Or you can go directly to pigment



*As you start to mix colours don't forget to label them for future use.*

powders available in many specialist art and modellers' shops. Good-quality pigment powders are my favourites. But you do have to watch out for how granular they are and also for toxicity in some colours, and that they are not inhaled. Some low-toxicity pigment powders are available in cake-decorating shops.

I collect colours with an addict's zeal. You never know when you're going to want 'that colour'. You can also try using some of the chalky powders but often these don't mix very well and can settle out of the liquid. It does depend on the effect you're trying to achieve.

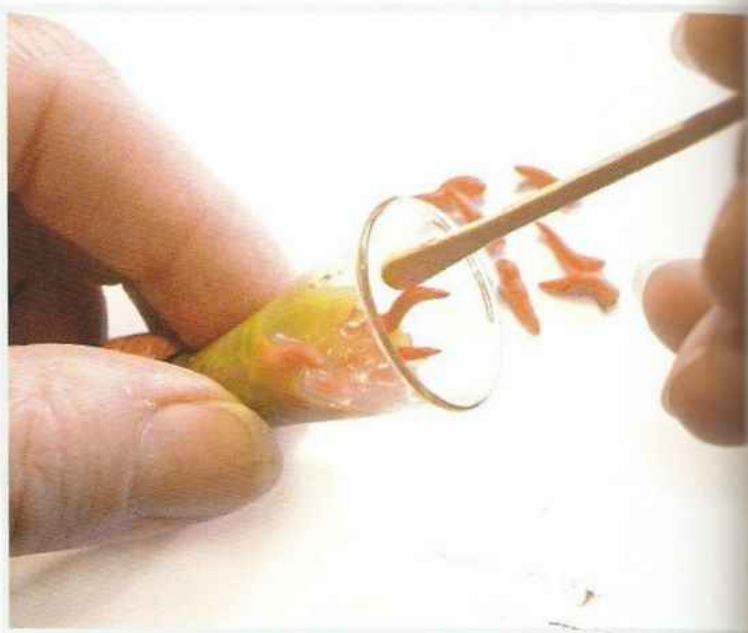


*Use just small amounts of pigment. This keeps the colour translucent and bright.*



## As a filling for jars

I prefer to fill jars with liquid polymer rather than resin (which has fumes) or scenic water (the resultant gel gets dirty over time). However, liquid polymer isn't entirely clear – it has lots of tiny bubbles, and it tends to expand a little in the jars when cooked; this causes some materials – even jars – to crack, especially if they have narrow tops. You can minimize these problems by leaving the material in the container to settle for a while, so the air bubbles rise out before baking, and by covering the jars with foil or baking parchment. If liquid polymer pushes its way out of the jar when baked, it can be cut off carefully while still warm.



*Above: carefully press your filling items into the liquid polymer.*

*Below: stop filling the jar just short of the surface. If you add more to flatten it off once baked, you need to re-bake.*



## Caution

Do not use acrylics to tint liquid polymer, as the water will cause bubbles, and may even be dangerous as it tries to burn off during baking.



## Open-bottomed jars

These are very effective for displaying whole or halved fruit, especially the flared-bottom or round ones. First close off the top, either using cork-coloured Fimo or cut little circles of cork with a leather punch, then put them in translucent polymer clay cones. The colour doesn't matter too much, as they will probably be covered in wax or red polymer clay later.

For fruit jars, use translucent liquid polymer to simulate sugar syrup and add a slight tinge of a fruit colour using a water-based pigment, or a little pigment powder. If working with miniature vegetables you could use green or green/yellow for olive oil or a very thin brown for vinegar. Whatever colour you're using, brush a little on the inside of the jar, then you can make layers of different-coloured items and stick each piece to the liquid polymer on the side of the jar. Make this the right way up. Finish filling the jar upside down: half fill the jar with liquid polymer and press the fruits into the liquid, stopping just short of the surface. Leave it to stand for a while, to clear, then bake again, supporting the jar on a circular band of Fimo leftovers.

## Fillings for the jars

It is easier to use unbaked polymer clay fruit or vegetables, as pre-baked slices tend to 'drift' inside the jar before the filling has set. It also helps to work in layers, and to put in as many pieces as possible. Always ensure that inclusions are fully dry before putting them in a jar, otherwise the whole thing may expand dramatically, leaving a total mess.

## TIP

Use your imagination when filling jars. Some of the items you could use from this book are: asparagus spears, olives (both stuffed and sliced varieties), mushroom slices, pepper slices, raspberries, starfruit and cabbage slices.



# Royal icing mix

*Using liquid polymer, white oil paint and Shovelled Snow, you can easily create different thicknesses of royal icing mix. When tested, Liquid Fimo was the least brittle material to use, but I didn't attempt to bake at higher temperatures.*

## You will need:

- Small glass jars for mixing
- Kitchen roll
- Stirring sticks
- Liquid Fimo
- Titanium white oil paint
- Shovelled Snow (Deluxe materials)

## Caution

Mixing liquid polymer, additives and paint can be quite messy so you are strongly recommended to wear an apron. Cover your work area and have plenty of kitchen roll to hand.

## tasty ideas

*For all the projects involving liquid polymers with colours or additives, it is worth gathering together small glass jars like the ones used for jam in cafes and hotels. Label your mixes as some can look similar but be quite different for varying uses.*





b



c

### 3 Medium royal icing mix

The medium mix is about 1:1 liquid to powder (or just a little more powder). This is used for the heart-shaped cake and Bakewell tarts (b). It is a thicker mix but will still run freely.

### 4 Thick royal icing mix

The thickest mix is approximately 1:2 liquid to powder. This is the mix I use for spreading on to cakes. It hardly runs at all when placed. To test it you should twirl your stirrer and the material should cling to the stick (c). It will be more brittle when baked.

1 I mix royal icing using liquid polymer, a little titanium white oil paint, as for the doilies project on page 138. However, for royal icing I also add 'scenic snow' see box below. The scenic snow thickens the material and gives it the feel of various grades of icing, depending on how much you add. I tend to use Liquid Fimo for royal icing; the flexibility is compromised as soon as you add the dry powders. Liquid Fimo retains its flexibility a little better than the others in tests.

### 2 Thin royal icing mix

The thinnest mix has just a little scenic snow, approximately 2:1 liquid to powder. I use this for making moulded decorations as it is very flexible once baked (a).



a

## Scenic snow materials

I am often asked what materials can be used to simulate cake icing and decorating materials. More options are appearing on the market all the time, mostly encouraged by the railway-modelling market and the card-decorating craft. All powders can be used mixed with air-drying PVA glues and some with cyanoacrylate-type glues. If in doubt check with the manufacturer. All ready-mixed products can be left white, or coloured with cake-decorating powders, or acrylic paints, except where mixed with liquid polymers. See page 152 for a detailed list of suppliers. I have also discovered that cornflour can be successfully used as a substitute for scenic snow. The results are not a bright white, but are certainly good enough.



# Bakewell & iced tarts

*This is a nice easy project for those just beginning with liquid polymers, and it is especially useful for creating a tea-shop scene. Other ideas include Yorkshire curd tarts, custard tarts and, of course, simple jam tarts.*

## You will need:

### Bakewell tart:

- Pre-made pastry cases (see page 32)
- Small amount of polymer clay 3:1 translucent to white mix, plus ochre 8:1
- Semolina or maizemeal
- Royal icing medium mix (see page 100)
- Liquid polymer coloured red with crimson oil paint or pigment powders
- Red glass beads, closest in size to  $\frac{1}{16}$  in (1.5mm)

### Dragged icing tart:

- Pre-made pastry cases (see page 32)
- Royal icing medium mix (see page 100)
- Chocolate-coloured liquid polymer in the bottle, made with burnt umber and sienna oil paint or pigment powders
- Toothpick

## tasty ideas

*You can make these tarts in any size you wish. Larger ones for cutting slices, or smaller individual-sized portions.*



## See also:

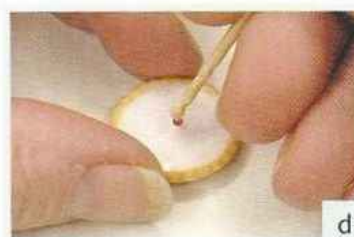
Pastry cases – page 32

Royal icing mix – page 100

1 Make your red jam mix by adding just a very small amount of oil paint to your liquid polymer using the cocktail stick to scrape a little from the top of a gently squeezed paint tube. Remember you can always add more but you can't take it away again. For the bakewell tart, put a little of the red jam mix into the bottom of the pastry case and bake for ten minutes (a).



2 Mix the polymer clay with as much of the maize meal as you can get into it without making it crumbly. Press a small amount flat into the bottom of the tart case, leaving room for the icing (b).



3 Pour enough of the icing mix completely to cover the base and make sure when it settles the underneath colour is not too visible (c).

4 Pop a red bead cherry carefully into the middle (d) and bake for 20–30 minutes (check the manufacturer's instructions for baking times). You can cut a slice out of the family-size tart while it's still warm out of the oven.

## Dragged icing tarts

To make the dragged icing tart, just fill an empty pastry case with the royal icing mix. You don't need to put the base colour in, unless you want to make a cut tart. Very carefully and quickly, pipe several brown lines across the tart using a coloured mix in a container with a nozzle (Liquid Fimo comes in this type of container). Gently drag an equal number of lines through the icing at 90 degrees to the first set with the toothpick. Bake immediately. You could also try making a spider web by piping concentric circles first and then dragging from the centre to the edge all the way around.



# Mince pies

*Creating texture and colour by adding beads and semolina to liquid polymer, you can create a wonderfully realistic mincemeat mixture, which can also be used to make seasonal puddings and cakes. Make large tarts for cutting, or individual-sized pies.*

## You will need:

- Small glass jar
- Liquid polymer, coloured brown with a little oil paint
- Semolina or maize meal
- Tiny glass accent beads – brown, black and clear
- Red glass beads (can be the same size but best slightly larger)
- Pre-made tart cases (see page 32). Or, you can make and fill in one go, especially if making unbaked pies
- Tiny holly-leaf cutter, the open cutters are best for this
- Chalks or powder colours and paintbrush to brown the pastry if making baked mince pies
- Optional: various eggcraft findings, to use as cutters for smaller tarts (see pictures 'd' and 'e' on facing page)



a

1 An easy filling for mince pies can be made from a mixture of liquid polymer and textured materials. Here I've chosen a mix of semolina and tiny glass accent beads (red, brown, black and clear) mixed with liquid polymer (a). Alternatively you could use pre-baked and/or unbaked polymer clay grated into the liquid polymer. Don't forget the colours that are used in the real thing. Some cream or white in place of the suet. Dark brown or black in place of the raisins, brown in place of nuts, sultanas and peel, and don't forget cherries. I really do believe that red beads are the best for this.

## See also:

Pastry cases – page 32

Liquid polymer & inclusions  
– page 95







b



c



d



e



## tasty ideas

*For variations you can also glue extra 'cherries' (red beads) in the middle with a little uncoloured liquid polymer. You can also dust with talc, or cornflour, scenic snow, roket powder or sugar frost but personally I prefer them without.*

2 The liquid polymer should be brown coloured and it doesn't matter too much if it's translucent or a little opaque. Pour a mixture of each of your food and semolina 'ingredients' into a bowl and add enough of the coloured liquid polymer to make a thick, textured mix. Don't add too much or you will not be able to see the texture and colours of the ingredients (b–c).

3 A single-size mince pie can be made in a raised-head counter-sunk weather using a tiny Kemper circle cutter, an icing nozzle or a cutter made from a thin rod (d–f). Alternatively, make a larger pie.

4 Fill the tart case with the mincemeat mixture and add three leaves to the top (f).



f

# Toffee apples

*This project uses normal polymer clay to thicken liquid polymer. I choose the same brand of both to be sure the materials are compatible. I have mixed a **really** big batch here but you only need to use a very small amount to try this method.*

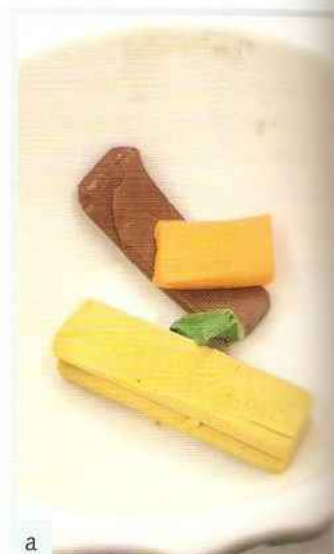
## You will need:

- Liquid polymer
- Polymer clay Fimo caramel mix – ochre and chocolate 2:1 and a little orange to taste. A more muted caramel can be made by adding a scrap of leaf green.
- Polymer clay for the apple shape
- Grater
- Pestle and mortar
- Lolly stick, basketry cane or bamboo skewer

1 To make toffee apples you need to thicken the liquid polymer. One method is to add the right colour of normal polymer clay to the liquid. You need to be aiming for a caramel colour mix. In Fimo this is two parts ochre, one part chocolate and just a little orange to 'taste'. If I want my caramel colour a little more muted I also add just a scrap of leaf green (a).

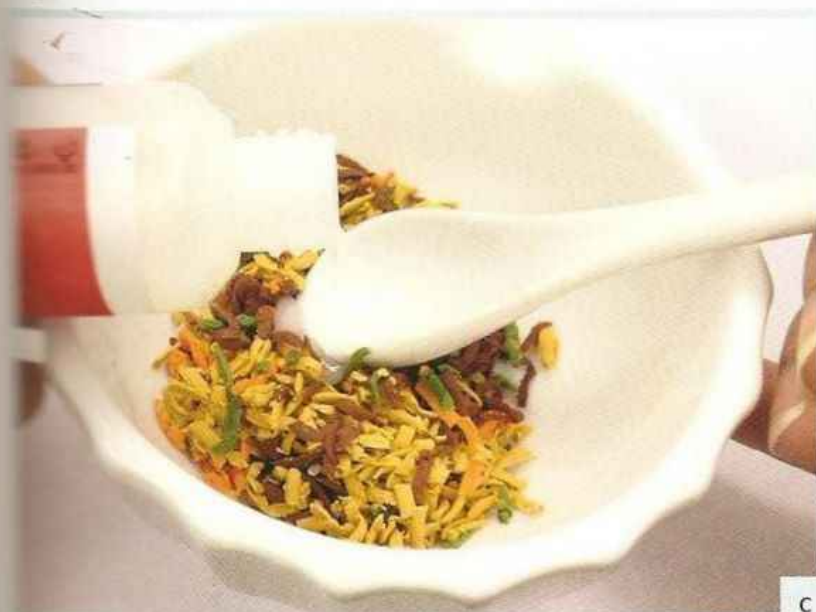
## tasty ideas

*To make a really professional job of it, make your toffee apples using rosy apples with stalks, which appear in my previous book 'Making Miniature Food and Market Stalls'. The extra effort really is worth it!*



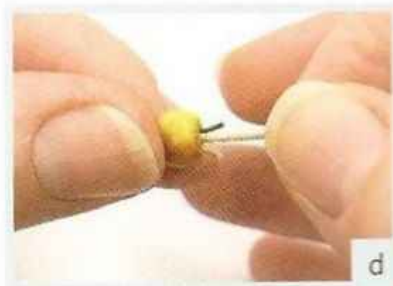
2 You make the thick liquid mix by grating a little polymer clay into water (b) and then using a pestle and mortar (used only in your workshop, not in the kitchen) or just the back of a teaspoon, gently work the liquid

polymer into the clay until you get a really thick, sticky mix (c). Try not to make it too thin and runny because it is hard to add more clay later, but easy to add more liquid to a mix that you find is too thick.



3 Cut a lolly stick, a piece of basketry cane or a bamboo skewer to the right length and split to get a really thin lolly stick. Make apple shapes and press on to the end of the sticks (d). I prefer to bake the apples before dipping. Make sure you stand them up on the apple to bake otherwise they will keep falling over when you dip them later.

4 Then simply dip the apples in the thickened mix and place back on your baking tray or tile to bake (e). I prefer both to work, and then to bake on the same ceramic tile. You must work quickly because even a thickened mix can run off the apple. If it runs too quickly your mix was too thin. Bake in small batches so that the mix does not have time to run off.





# Ice lollies

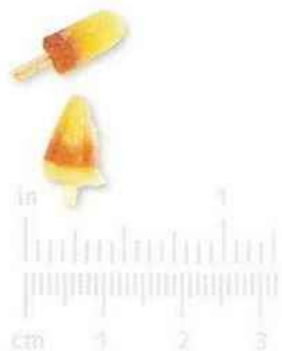
*This project uses liquid polymer in three different colours. It's vital that you have each colour in a bottle with a nozzle as you need to get the material in without air bubbles. It takes some practice getting the amounts of each right.*

## You will need:

- Very fast-setting silicone mould-making material
- Liquid polymer in colours of your choice  
(Liquid Fimo is best for this project)
- Wooden stirring stick

## tasty ideas

*A similar mould for a rocket lolly can be made using a cross-thread screwdriver bit as an initial mould. You can alter the shape if you want by making your first copies out of polymer clay, altering the shape and then re-making the mould. Make several moulds before you start trying to fill them, as up to half of your lollies won't come out well.*



## Ice-creams

There are many different types of ice cream that can be made with liquid polymer.



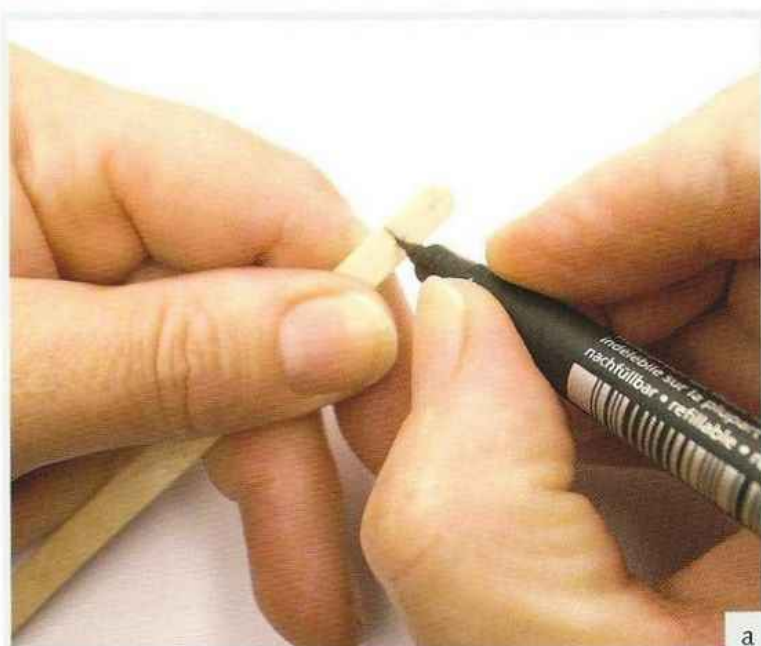
1 You will need a wooden stirring stick of the type used in coffee shops. Draw a line on it where you want your lolly to end; about  $\frac{3}{8}$  in (1cm) is about the right length for a normal lolly (a).

2 Form a small 'mountain' of mixed silicone moulding material and push the stick into it, up to the line you have drawn. Form the edges around the stick and hold upright until it cures (b).

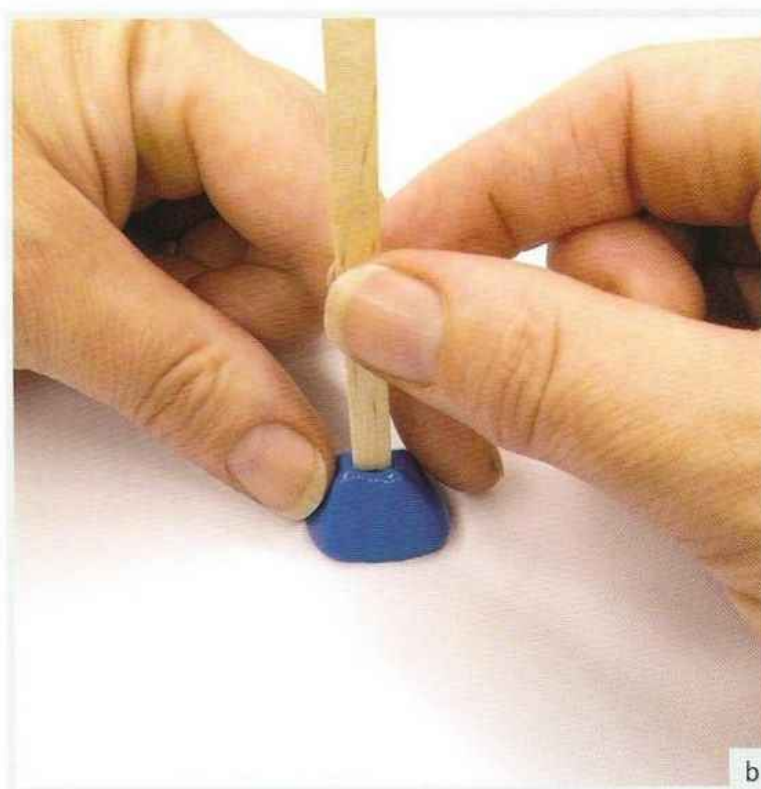
3 You can either make a simple solid colour lolly by using one colour mix, but more exciting are multi-coloured lollies using different colours of liquid polymer. These layers should be added between each colour to stop the colours running into each other. Make sure that you squeeze all the air out of the liquid polymer bottle before inserting it into the mould.

4 You can bake the liquid polymer in the mould as long as you stick to a temperature at or below 130 degrees.

5 The stick should be pushed into the liquid polymer when it has just come out of the oven and is still hot. Use a piece of kitchen towel to prevent burning your fingers.



a



b

# Lemon curd tarts

*You may like to change the lemon curd filling colour to a very slightly greener for key lime pie, which can also be made without the meringue, or with peaks of whipped cream, for which you can use the same technique.*

## You will need:

- Pre-baked or unbaked pastry cases – see page 32
- Liquid polymer mixed with a little yellow oil colour
- One of the pre-mix white, air dry, scenic snow-type materials – see page 101
- Brown chalks if you wish to brown the 'peaks' of the meringue

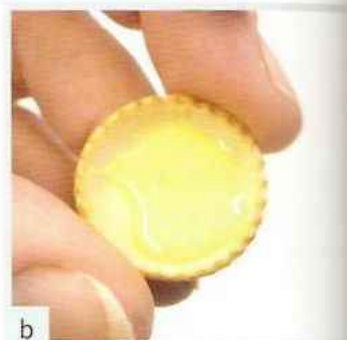
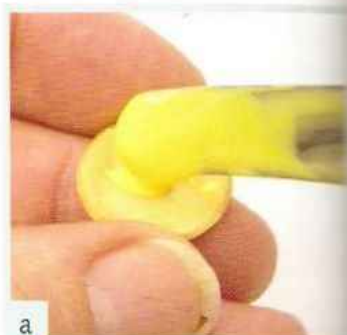
1 Put a couple of millimetres of the yellow liquid polymer mix in the bottom of the pastry case (a–b). Bake this for 20–30 minutes then, cool the tart.

2 The snow mix is then put on top. Drag the surface into peaks using a cocktail stick and leave to dry for several hours (c). I like Deco art's decorating paste for colour and translucency but this medium can split a little. I think this is realistic but you can also fill any cracks that appear. Aleene's true snow is also nice for this project.

3 If dusting the peaks with brown powder to give it a baked look, be careful not to overdo it or it will just look dirty.

## See also:

Pastry cases – page 32  
Scenic snow materials – page 101





# Fruit tarts

*Liquid polymers are absolutely ideal for creating the 'bond' to hold all of the fruits together in your fruit tarts. The limit here is your imagination. However, if you're short of ideas, look in the supermarket or your local bakery.*

## You will need:

- Mix of liquid polymer and a little yellow oil colour
- Clear liquid polymer or polymer clay varnish for glazing
- Shovelled Snow or cornflour
- Pre-made flan or pastry case – see page 32
- Slices of pre-baked fruit canes, either bought or made yourself – see tasty ideas, opposite.

1 Make a thicker yellow mix of liquid polymer to simulate confectioners' custard. You can add some Shovelled Snow or cornflour for this. Professionals may like to tweak the colour a little to make it look more like custard by adding a touch each of white, orange and brown. Keep it subtle!

2 Cover a pre-made flan or French tart base with this mixture to a depth of around  $\frac{1}{16}$ in (1.5mm).

3 Add slices cut from pre-baked fruit canes (see 'tasty ideas').

4 Pour a little extra liquid polymer (Liquid Fimo works best) over the top and bake. If the result is not as shiny as you like, you can use a polymer clay varnish after it's baked.

## tasty ideas

*Decorate your fruit tarts with any of the fruit projects in this book, such as: bananas (page 58), strawberries (page 64), kiwis (page 67), starfruit (page 90) and raspberries and blackberries (page 130).*



# Gel materials

**T**WO VERY POPULAR GEL MATERIALS ARE DELUXE MATERIALS' Scenic Water – a meltable and remeltable one-part resin useful for simulating still or moving water, bubbles in baths, pans, wobbly jellies, drinks etc, and Scenic White – an opaque gel additive. Together, they can be used for creating miniature junkets, blancmanges, trifles and so on. They can be coloured with the Scenic colours or food-colouring materials, can be scented with perfumes and essential oils, and can be used for creating falling/spilling water effects and many other food items. Their downfall is that they can get very dirty and cannot be washed with warm water. You can rinse them in cold water, however.

I do not recommend the gel candle materials used by some miniaturists, as there may be a fire risk associated with whatever 'fuel' is used within them. Nor do I recommend casting resins. I therefore haven't used casting resins in the main projects in this book because, as an asthmatic, I find them uncomfortable to use, and certainly don't recommend them for use by or near children, the elderly and those with heart or lung conditions. However, clear resins – available from craft suppliers – are the most translucent of all the materials that can be used to simulate liquids. If you are determined to use them, please follow the directions, particularly those pertaining to ventilation, to the letter. The good news is that a new generation of resins – which I haven't yet tried – is beginning to appear, which have less strong fumes.



# Victorian jelly

*This project combines mould making from found objects with using re-meltable gels. I've used Scenic Water and Scenic White by Deluxe Materials, but you could just as easily use resins or liquid polymers to similar effect.*

## You will need:

- Selection of moulds bought or made yourself – see page 120
- Silicone mould-making material
- Re-meltable gel
- Small heat-proof containers
- Shallow pan of water
- Any water-soluble pigment colouring in colours of your choice
- Fruit cane slices, flowers or leaves of your choice to decorate



### See also:

Making your own silicone moulds – page 120

## tasty ideas

*You can make a new single mould from the parts by using polymer clay, resin or plaster to form a single 'master' from which you can make a new mould of the whole tall jelly. Be careful there are no 'undercuts' in the design. If there are, fill them before making the final mould.*



1 Collect whatever moulds interest you for this project. I found a child's toy jelly mould, a button which I'd previously collected because it looks like a fruit tart, and a very small, cheap dolls' house mould (a). Make a silicone mould from each of these parts. Enthusiasts and advanced modellers might like to make several moulds to work on at once.



a

2 Spoon a little of the unmelted gel out of the pot into several heat-proof containers and place in a shallow pan of water (or according to the instructions on your chosen product). Heat until melted (b). This is usually a very quick process. Take care not to boil rapidly as spatters of water may get into the gel and spoil it.



b

3 Add a few drops of colouring, usually available with the product, or you can use any water-soluble pigments (c). You can also add a small drop of essential oil at this stage if you want to scent your jellies.

You can colour yellow first and later make green, orange or red jelly in the same pot from the leftovers from the first, just by adding either blue or red. You can leave the Scenic White completely white or that too can be coloured.



c

# Moulds

**M**OULDING CAN BE A SHORT-CUT TO DIFFICULT MODELLING processes. They are available for many miniature purposes and in many materials. Alternatively two-part silicone moulds are easy to make and, being flexible, have the advantage that you can have some 'undercut', even when using them for one-part moulds.

I have been experimenting with mould materials for the last few years, mainly because I don't consider myself a very proficient modeller. Moulds are ideal for helping those whose own modelling skills fall short, where time is an issue, and also where liquid materials require holding together until they set, or are baked hard.

Although I have not included any two-part moulds in the following projects, two-part moulds are easy to make if you use a 'resist' between the two halves. In the case of silicone moulds, after completely curing the first side, a liberal dusting of talcum powder stops the second side sticking.



# Using moulds

*Mould collecting and making can become addictive; you can find yourself trawling through miniature fairs for different jelly moulds, through tool kits and button boxes for anything that looks like something else in miniature.*

## Bought moulds

Moulds can be bought from various miniaturists, online and at miniature fairs. Sugarcraft (cake decorating) shops are also a good source of interesting moulds, such as leaf veiners for rose and other flower leaves in full size and in smaller sizes. They generally don't sell anything in 1:12 scale, but larger leaf veiners are usable for miniature cabbages and lettuce, they often have simple doll moulds and moulds for other small items, and I have bought interesting texture plates.

## Making your own silicone moulds

This is my preferred method, because the moulds are easy to use, speedy and flexible. The two-part moulds hold together well while working, so no support is needed for most moulding applications, and you can just form the material around the master without any preparation. They are easy to make and, being flexible, have

the advantage that you can have some 'undercut' even when using for one-part moulds. The moulding paste is a similar material to that used by dentists to take an impression of your teeth, so it takes up the finest detail and the moulds you make remain flexible. I have tried the Gedeo brand, which is designed for DIY crafts; Silicone Plastique, which



*Bought moulds, objects to make moulds from and my own handmade moulds (on facing page).*







designed for cake decorating; and now I have my own branded material. All are pleasant to use, really safe and fast-setting products: simply mix the two parts together in equal quantities and press the mix over your 'master' – or press your master into the moulding paste – and it will set in less than an hour (a).

An added benefit of making moulds is that you can make impressions of your best work and repeat them over and over again (b). For instance, you might want to make a whole

crate of bananas, but bananas are a difficult shape for you to get right. You can spend a lot of time making your first few bunches which will be on show at the top of the crate, and make a mould for the less visible bananas beneath them.

## Caution

Some material affects silicone moulds causing poor setting.

Anything containing latex, such as latex gloves, seems to cause problems. Masters made from Du-Kit or from unbaked polymer clay also have problems at the surface nearest the master, causing blue mould material to come off the mould onto your clay. To avoid this you could coat your master liberally with varnish, but this would have a negative effect on fine detail so, all in all, it's best to avoid materials which cause this problem by using a non-reactive material when making masters for moulding.



## tasty ideas

*Be aware of what you are going to take a mould from, which way up it's going to be, and how many parts you will need the mould to be in before you start to mix.*

*You can't waste time, as the better mould-making materials begin to cure within a couple of minutes, so you have no time to re-do mistakes.*

## Moulds from nature

Several natural forms can be used to make moulds. There are many plants that produce leaves in a variety of leaf sizes, some of which are a 1:12 scale version of themselves. There are plants that produce faithful little pumpkins and a tree which produces a usable pattern (for altering) for a pineapple – and also for a hedgehog – but I haven't found the names of these yet, just the fruits for sale at miniature fairs. While walking in Spain I found the carmine plant which produces perfect little fruits that look very similar to satsumas. But, by far the most exciting is the fractal form of the Romanesco cauliflower; with tiny whorls

*Miniature 'satsuma' forms on a carmine plant.*



*Tiny pumpkin forms from a natural plant seed pod.*

which are each minute versions of the whole (see below). It's very easy to reproduce in miniature, simply from a mould made from one of these pieces.

My advice to the curious miniaturist is always to keep a pair of pots of the two-part moulding material in your pocket or handbag. You'll be surprised when inspiration hits you!

*The wonderful Romanesco cauliflower, which reproduces miniature versions of itself to the miniaturist's delight!*



## Making moulds from filigrees and lace

This is a fun way of making doilies – a quintessentially English plate or tray cover used underneath and sometimes over, sandwiches or cakes; doileys are usually round and in Victorian times, especially, were made from lace or embroidered. Now they are made from paper patterned to imitate lace, and only used, under cakes or party food. It's amazing that we can now create either lace or paper doilies by using lace motifs as masters for our moulds. European chocolatiers and traders have caught on to the idea of using lace in place of paper doilies, and at miniature fairs I've found many examples where different lace – often antique and handmade – have provided a wealth of patterns for miniature versions of full-size doilies (see Doilies project on page 138).

Filigrees come in literally hundreds of wonderful designs which can be used for miniature cakes. By moulding from them you can reproduce a semi-translucent icing effect which you can't get from simply painting the originals. However, copyright may still be an issue for those who wish to sell their work.



*Two moulds for cake decorating items using a thin liquid polymer 'royal icing mix'.*





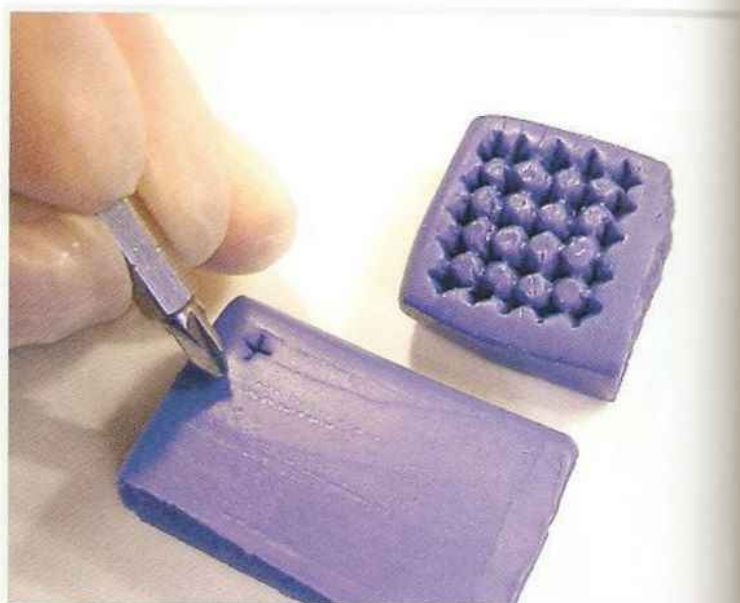
## Plaster of Paris moulds

This is best for using with air-drying products because the plaster absorbs the moisture out of the material you want to cast. Miniature plates and bowls etc can be cast really simply from plaster moulds using clay 'slip' (a clay mixed down with water to a smooth consistency). This is much easier to do than most people imagine and it also has the advantage (to the miniaturist) that the finished item in clay or air-drying materials will be at least 30% smaller than the original.



## Polymer clay moulds

Polymer clay can be used as a rigid mould, even for use with polymer clay itself if you dust the mould with talcum powder to stop the material you're moulding from sticking. Simply push the dusted master into the clay, bring the clay up to the edges, take the original out and bake the mould. The advantage of using polymer clay is that you can see if the mould has worked straight away and, if it hasn't, you can use the material again. As a result, it can be significantly less expensive than the permanent silicone moulds.



## Clay and gel mould materials

There are hot-melt casting products which can be used with cold porcelain and air-drying clays, as well as with oil-based polymer clay and ceramic clays. They are also generally re-usable by re-melting. However, they do have the disadvantage (because of being heat-melted) of not being usable for oven-setting polymer clays and liquid polymers, or for casting with metal.

First, make a master, then invest in a container that is higher than the master. Melt the material according to the

instructions and pour it over the item in the container to cover it completely. The mould is then flexible but, if deep enough, reasonably stiff. There are several grades available: Vinamold has two, a soft red version, and a yellow harder grade similar to Gelflex, which is made by Hobby's and is fairly rigid but still flexible.

### Cake Art casting gel

There is a product by an Australian company called Cake Art which is a food-grade casting gel, so it's completely safe even if ingested. It works

a lot like the clear gel products I use for miniature jellies, but is coloured green.

## Rubber moulds

I haven't tried these mould-making materials, but it is the material preferred by miniaturists who work with hot-metal castings. They can be used as stand-alone moulds, or moulds can be made for casting in a centrifuge. If you're thinking of buying a system like this, it is expensive, and more suitable for the advanced miniaturist.

## Copyright issues and moulds

When using mould-making materials, please note that it is an infringement of copyright to copy another person's work for sale without the express permission of that artist. This means that if you take an impression of something which is clearly another artist's work it must either only be for your own use, or you must alter it so significantly that it in effect becomes all your own work. Although this can be something of a grey area, you have been warned!

A good rule of thumb is that when using someone else's work by taking moulds or impressions of it to use in your own work, if the original is unrecognizable in your own work you have altered it enough to make it your own. For example; a button shape, which you think looks like a cake in shape, when differently coloured, altered a little by the addition of ribbons and roses, and presented as a miniature cake in a dolls house...is no longer a button.

# Heart-shaped cake

*I made my heart master from a blackboard pin, but you can find many different shapes for making cake formers, from simple tops on cosmetics to decorative items from craft shops – keep an open mind as to what shapes can be used.*

## You will need:

- 2-part silicone mould material (see page 120)
- White or porcelain-coloured polymer clay (I use Doll Fimo)
- Liquid polymer royal icing mix, medium to thick (see page 100)
- Cake boards or miniature plates
- Heart-shaped master
- Wooden or small metal spatula
- Kitchen roll
- Cocktail sticks (preferably with one blunt end)
- Red glass beads
- Little moulded or bought roses or strawberry slices (see page 64)
- Leaf slices (optional)

## See also:

Make your own silicone  
mould – page 120

Royal icing mix – page 100

Strawberry slices – page 64

## tasty ideas

*It takes a little practice to judge the amount of material you need so, if this is your first ever mould, expect to use rather more material than you need as, if you use too little, you may have to try again.*







a



b

Use enough 2-part silicone to make a 'mountain' that will come right up to the edges of the master, but will cover enough over to form a 'shoulder' so that you can flex the mould without your clay when you're releasing – and a little extra depth, to ensure the master doesn't break through the bottom. Some silicone mould materials set very quickly so work quickly and don't be distracted by the doorbell, the telephone, or your children (a)!



c

Press the heart shape into the clay to form the mould (b).

Smooth the material right up to the edges of the master, making sure it's completely ready (c).

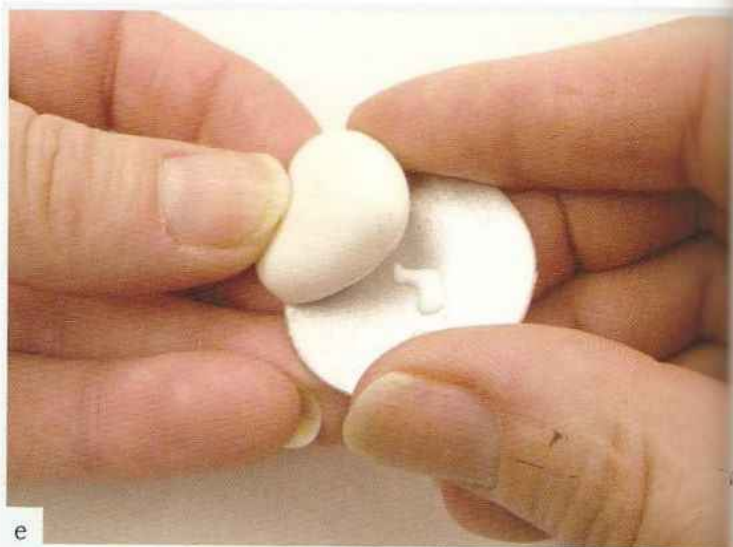
4 Allow to set for the time indicated on your material, then remove the master. The mould is now ready to use for moulding your cake from polymer clay (d).



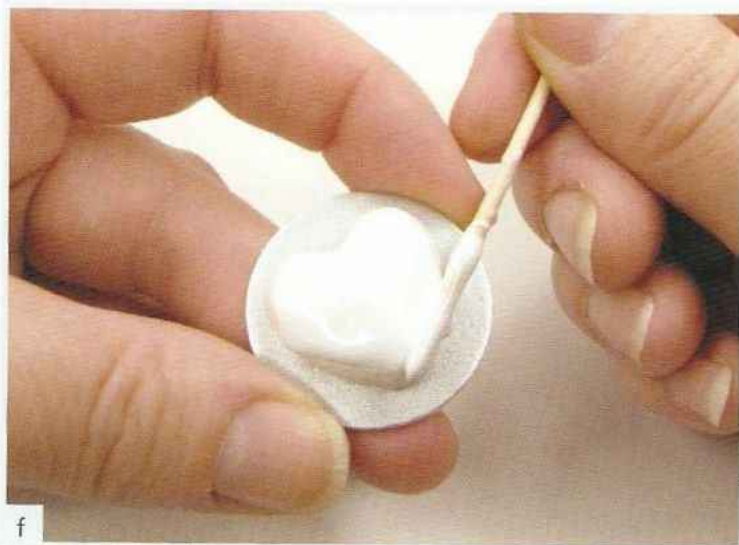
d

5

Using 3:1 translucent white mix, or some porcelain-coloured Puppenfimo, press mould a cake base, flex the mould, then release. You can either bake this shape first, or use it unbaked. Use a cardboard cake board or plate under your cake and fix the cake to the board before attempting to decorate (e) – you won't be able to hold the cake itself, as you would get covered in sticky icing mix and leave fingerprints on your cake.



e



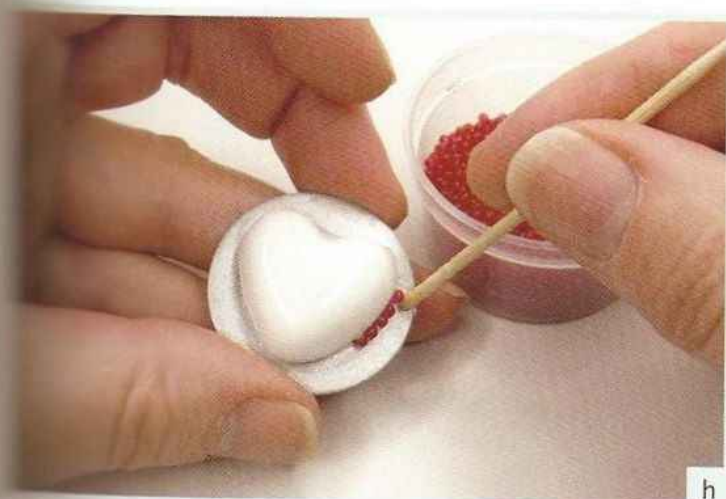
f



g

6

Cover the cake in the royal icing mix (f). Allow it to run down the sides but clean up any excess afterwards (g).



h



*I have also used the same heart mould for my physalis cake which uses Aleene's True Snow as a textured icing.*

Use the blunt end of a one-ended cocktail stick (or cut one point into a double-ended one) with just a dab of the sticky icing mix on the end to hold the beads (cherries) on long enough for you to move them around (7).



i

Place the beads all the way round and then finish off with some of your textured roses. Or you can use roses of strawberry (i) and three roses of leaf cane.

You can also use broken polymer clay for the heart-shaped blanks and make a chocolate version. These cakes were made by one of the glass groups at Soest. All the alternate designs were created by them.





# Raspberries & blackberries

*You can make the berries individually with beads which can be beautiful, but is difficult and time consuming. For multiple production, it is a good idea to make moulds, so the berries can be reproduced over and over again.*

## You will need:

- Very good glue
- Wire or cocktail sticks
- Really tiny, even-size, no-hole beads
- Liquid polymer
- Alizarin crimson, marine blue and black oil paints
- Bottle with a fine nozzle

## tasty ideas

*Use a really good glue, but be aware that your master may be destroyed in the making of the mould, as de-moulding the master can pull individual beads off. If you try using more glue to keep the beads on, the excess can 'blur' the nice sharp definition of the individual beads, so it's worth losing the master for a really good mould which will last through very many mouldings.*





a

1 First, make the 'master' for raspberries by glueing tiny, even-sized, round beads to a wire or cocktail stick. It's important that the beads are uniform and of even size, as variable sizes can spoil the result.

2 Make the mould mix and use the master cocktail stick to press the beads into the mix, leaving the cocktail stick on the surface or propping it upright will help you see if you're making a level mould. Remove the master (b).

3 To create the fruit in the mould, for the raspberries you'll need a 1/4 in (5mm) squeeze tube of alizarin oil paint and a third of a bottle of liquid polymer. Using a smaller tube, you'll need a larger 'squeez'. The same mix is used for the blackberries, but with ultramarine blue and black added.



b

4 Mix thoroughly, and pour into a bottle with a fine nozzle (it must be fine to fill the tiny moulds).

5 Leave the bottle to rest, to let any air bubbles out from the mix (important, as these would appear as a hole in the berry). Squeeze the air out of the bottle, as you would with a syringe, before up-ending it into the mould.

6 For really small moulds such as these, you need to fill from the bottom back, until the mould is full right to the surface.

7 After baking, pull the berry out and cut the excess off. You may find a few stray beads stuck in the mould for your first few 'pourings'. Eventually they will all come out on their own. Don't try to pick them out as you will damage the mould.



# Cheesecake

*This project pulls together many of the ideas used shown so far – liquid polymer with inclusions, cake moulds and moulds for small items. The scale of the beads is a bit large for 1/12 scale, but the ideas shown here can be adapted.*

## You will need:

- Silicone mould-making material (see page 120)
- Liquid polymer, coloured biscuit brown (with ochre, brown and white oil paints)
- Semolina or maizemeal
- Liquid polymer coloured orange for an orange cheesecake, or burgundy for the summer berries version
- Liquid polymer royal icing mix (see page 100)
- An extra jar
- Short dowel, or flat end of a pencil or brush
- Orange or lemon slices, or beads and 'berries' for the summer berries version
- For the summer berries cheesecake project: spring-green sewing thread and scenic lichen (available at railway modelling shops)

## See also:

Make your own silicone

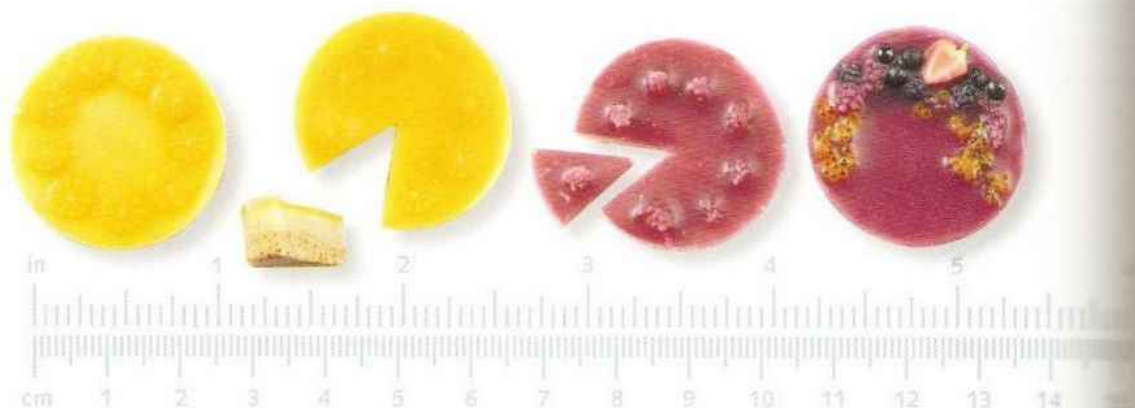
mould – page 120

Royal icing mix – page 100

Strawberry slices – page 64

Raspberries and

blackberries – page 130





1. Make a mould, as described on page 120, using a cosmetic lid. If possible, level it using a spirit level, or, in which case, ensure that your table is level first.



a

2. Make a biscuit-base mix using a dark brown mix of liquid polymer mixed with semolina to a fairly dry consistency – not too dry or the base will crackle (a).

3. Put a very thin layer in the bottom of the mould, tamp it down really firmly and level all the way using some wooden dowel (b). Take your time to do this really well.



b

4. Bake this layer for 10 minutes.

5. Mix the orange colour for the cheesecake and put to one side.

6. Decant some of the orange jelly colour into a small glass jar, and mix in some of the white royal icing mix to make a good cheesecake colour and a lighter, thicker consistency. Add this lighter-colour layer to the mould, at least twice the thickness of the biscuit base (c).



c

**7** Tap the mould down on the surface a few times to allow any air bubbles contained in the mix to rise, then bake again for ten minutes or so. These intermediate bakings are to ensure that the mixes don't 'bleed'.

**8** The cheesecake may pop up in the mould, due to air in the biscuit base mix expanding, especially if you haven't pressed it down enough. If this happens, push it back down and allow it to cool.

**9** Once the cheesecake has cooled, add a thin layer of the set-aside jelly mix, making sure it goes right to the edge of the mould and even up at the edge just a little bit, which forms a lip to help with the next stage. Bake this again for another 10 minutes and allow to cool.



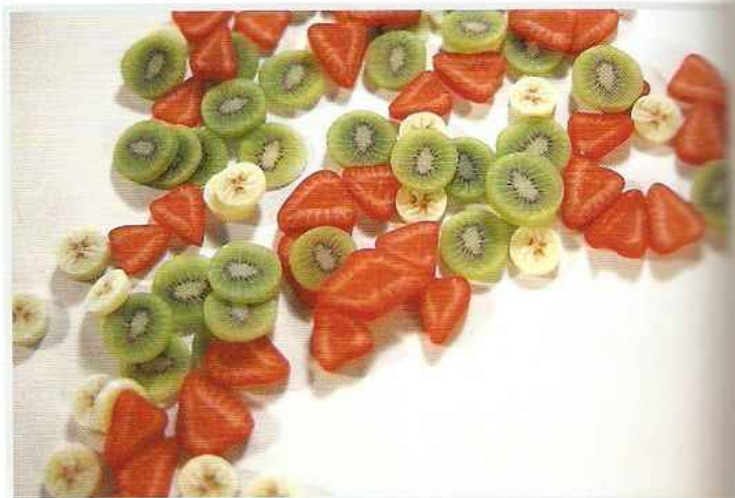
d

**10** Cover the cheesecake with fruit slices and add a thin layer more of the clear liquid (d).

**11** Finally, bake for 15 to 20 minutes or according to the manufacturer's instructions.

## tasty ideas

*You can decorate your cheesecakes with any of the fruit slices shown in this book, such as strawberries, kiwis or bananas. Be creative with your own combinations.*



# Summer berries cheesecake

1 Follow the steps for the orange cheesecake but use some burgundy-colored liquid polymer mixed with the royal icing for the cheesecake (a).

2 Add the plain translucent burgundy mix for the jelly topping (b).

3 To decorate with redcurrant berries, trail a spiral of clear liquid polymer onto an ovenproof plate and add spring-green sewing thread to the spiral. Sprinkle red accent beads onto the dish and use a cocktail stick to encourage them to clump together. Add strips of green scenic lichen and bake at the temperature indicated on the liquid polymer (c).

4 When baked, remove this material as a strip and snip little sections to use for your cheesecakes (d).

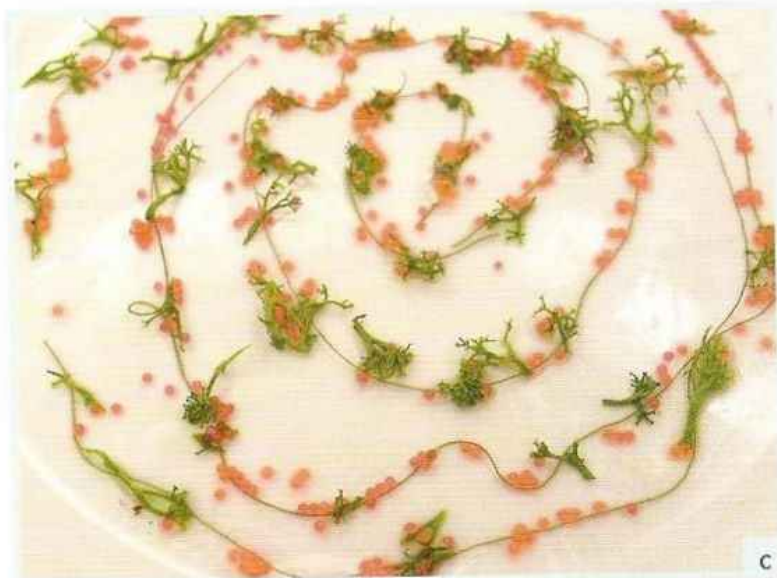
5 Other decorations you could use are strawberries (page 64), blackberries and raspberries (page 130) and black beads for the blueberries.



a



b



c



d



e

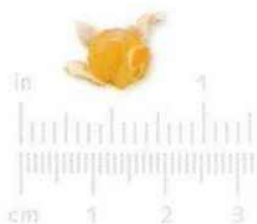


# Satsuma

*If you live in a country where carmine plants grow you can make a mould directly from one of the fruits, which happen to look exactly like tiny satsumas. If not, you can make a mould using a tiny flower-shaped cutter as shown here.*

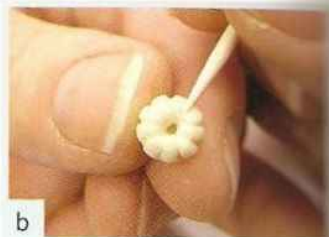
## You will need:

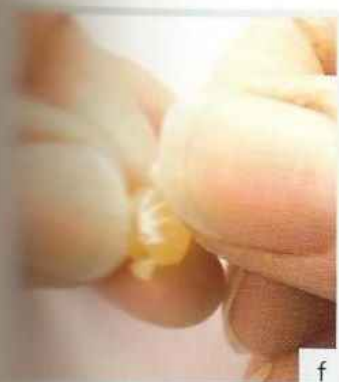
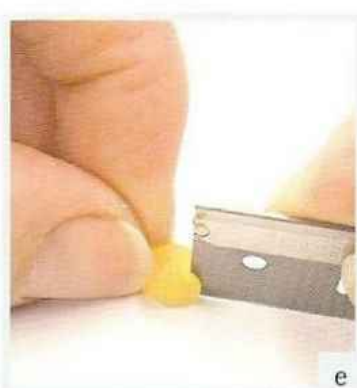
- Small flower-shaped cutter
- Talcum powder
- Silicone mould-making material
- Translucent polymer clay, Scenic Water or liquid polymer coloured orange for filling the mould
- Single-sided safety blade
- Mix of translucent and white 3:1 polymer clay for the pith
- Orange and pale cream polymer clay mix for the skin
- Heavy-weight sandpaper



1 Liberally dust your cutter with talcum powder. Cut out a thick piece of one of the stiffer polymer clays using this cutter and push out using the back of a decorative cocktail stick or a small dowel. Or you can use the back of a paintbrush (a).

2 Gently bring the top and bottom of this shape into the centre, using the indentation made by your pushing stick as a centre. You can then use your cocktail stick to re-emphasise the lines between the sections (b).





You can then make your silicone mould from this baked work (c). Due to recent changes to formulas, most polymer clays affect the silicone. You may need to make several similar moulds. You will need to harden this mould. Perhaps even make a second one if you're not happy with the first. It's a good idea for making a mould where several segments are removed.

When your mould is ready, you can use either translucent polymer clay or translucent water or liquid polymer clay to make the fruit (d). The reason for using liquid polymer, is that I like the wet, matte effect you get from it. It's a good idea to make the mould.

**5** If you want to cut out a segment, when the fruit is baked, remove it from the mould while still warm and place on your cutting surface (e). Use a single-sided blade pushed through the material very firmly and quickly on each side of a 'bulge' to remove, and place the segment sideways next to the main part, or however you wish to display it.

**6** Rub a little polymer clay mix of 3:1 translucent to white across all the 'ridges' and in the centre to make it look as if some of the pith is still clinging to the fruit (f).

**7** For the skin, make a sandwich of one layer of orange and one of pale cream mix polymer clay rolled together as thinly as possible. Texture this by pressing heavyweight sandpaper all over the orange side (g).

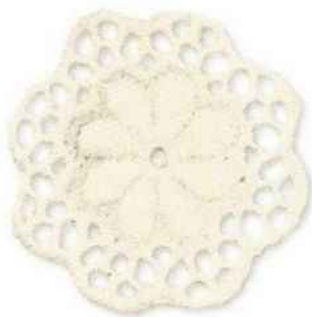
**8** The most difficult job now is assembling the fruit and its skin. You could use several pieces from a leaf-shape cutter or one from a larger calyx-style cutter to cut shapes for the open fruit peel. Alternatively, tearing it roughly with a dental tool or cocktail stick gives a more naturalistic result (h). Use a little liquid polymer to help the peel to adhere to the fruit and re-bake the whole lot together.

# Doilies

*Making doilies from lace motifs is a fun and simple project to attempt and will transform the way you present your miniature food. Try it first with a medium-weight lace. As you get more confident you can use finer qualities.*

## You will need:

- Piece of medium-weight lace
- Silicone mould-making material
- Piece of thick foam core
- Knitting needle
- Ceramic tile
- Liquid polymer with a little titanium white oil colour added
- Palette or butter knife



## See also:

Making your own silicone

moulds – page 120

Making moulds from

filigrees and lace

– page 123

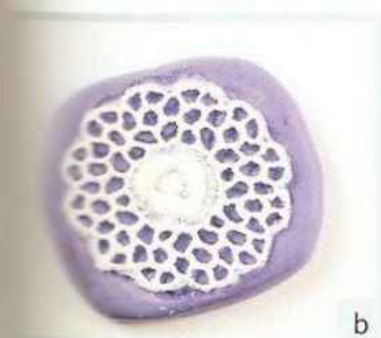


a

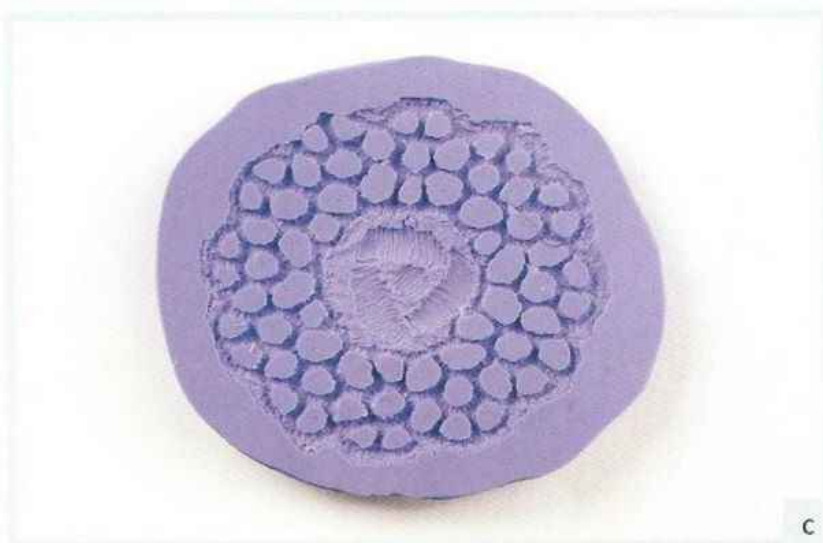
**1** Your original should be a motif from a piece of medium-weight lace (a). You can try finer patterns when you have a little experience.

**2** You must make sure that your mould is flat and level if you are going to use liquid polymer in it. For this project we only need a thin mould so I have cut a circle out of a piece of thick foam-core; this is really useful to help you to roll out a standard thickness. Mix your mould material quickly and press it flat within this gap. I use a knitting needle to drag over the top to check it really is level.





b



c

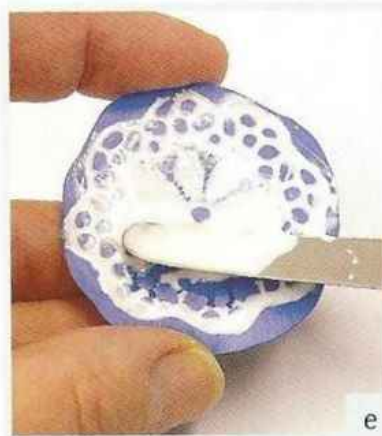
3 The lace motif is then pressed lightly into the mould material and the silicone is allowed to 'bleed' slightly through the holes (b). You can then place a ceramic tile face down over the top if you wish, but this is optional. Leave the mould material to set. Remove the ceramic tile and the foam-rubber. Place the mould on your baking surface (c).

4 Liquid polymer with a little titanium white oil colour added is used to fill the mould and is baked inside the mould (d). If you accidentally overfill, use a palette knife (or my favourite tool, a butter knife) to scrape off the excess (e).

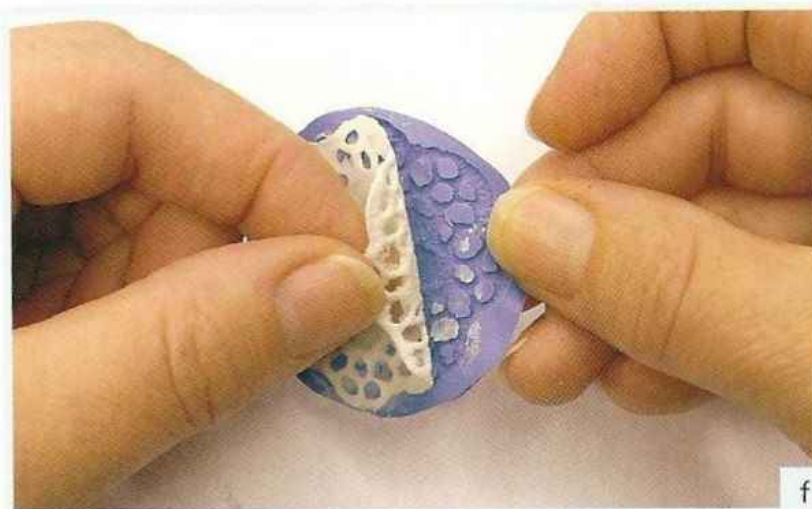
5 Wait until the mould has cooled before you remove the doily gently (f). Do not over-flex the mould, especially with finer designs.



d



e



f

# Tiered wedding cake

*This project is a bit of a 'sticky' job, so don't attempt it without an apron. Any stray fibres from dark clothing or new carpets will get into your work and spoil it, so make sure your work area is very clean and have kitchen roll to hand.*

## You will need:

- Three square cake blanks (see petal wedding cake project, page 148)
- Piece of silver card or a silver-painted box lid as a base
- 8 or more wooden spindles
- Silver or white paint (optional)
- Royal icing thick mix (see page 100)
- Moulded decorative items from filigrees (see page 123)
- Silver filigrees, e.g. horseshoes, hearts etc. to decorate corners
- A 'snow writer' bottle or similar (optional)
- Flowers or figures etc. to top the cake off
- A quick-setting, white 'tacky' glue

## See also:

Petal wedding cake

– page 148

Royal icing thick mix

– page 100

Moulds from filigree

and lace – page 123



## tasty ideas

*White or coloured*

*decorations can also be*

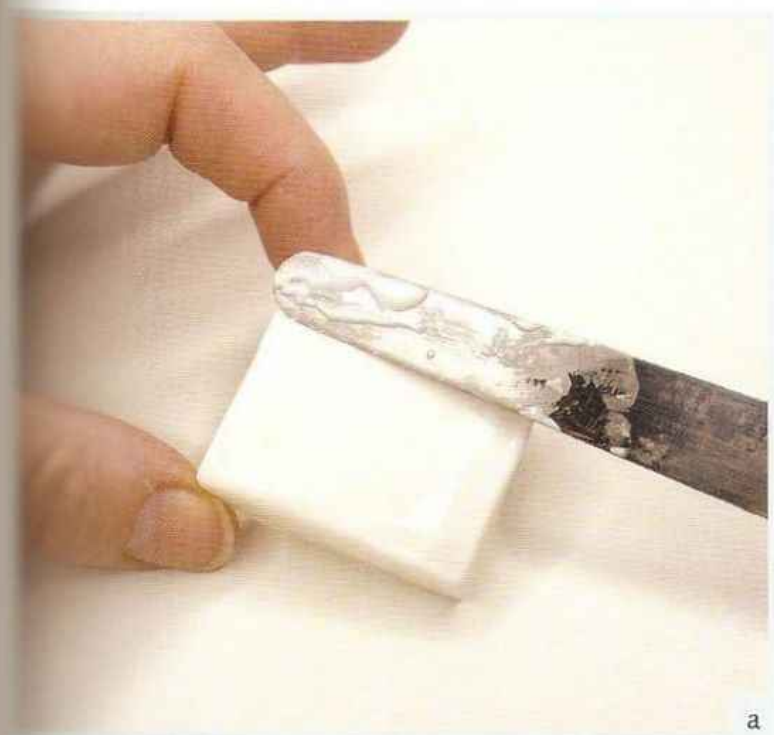
*made from tiny moulded roses*

*moulds can be made from scraps*

*of lace, or you can buy tiny bride*

*and groom mouldings and so on*

*from real cake-decorating shops*



a

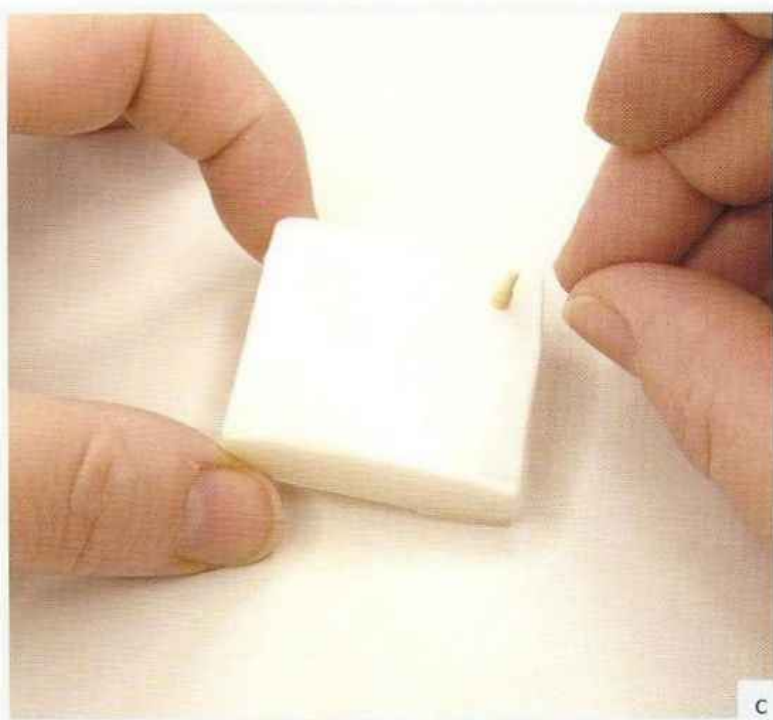


b

1. Wake up the cake blanks, and cover each one with the royal icing mix, using a spatula to smooth it as much as possible (a).

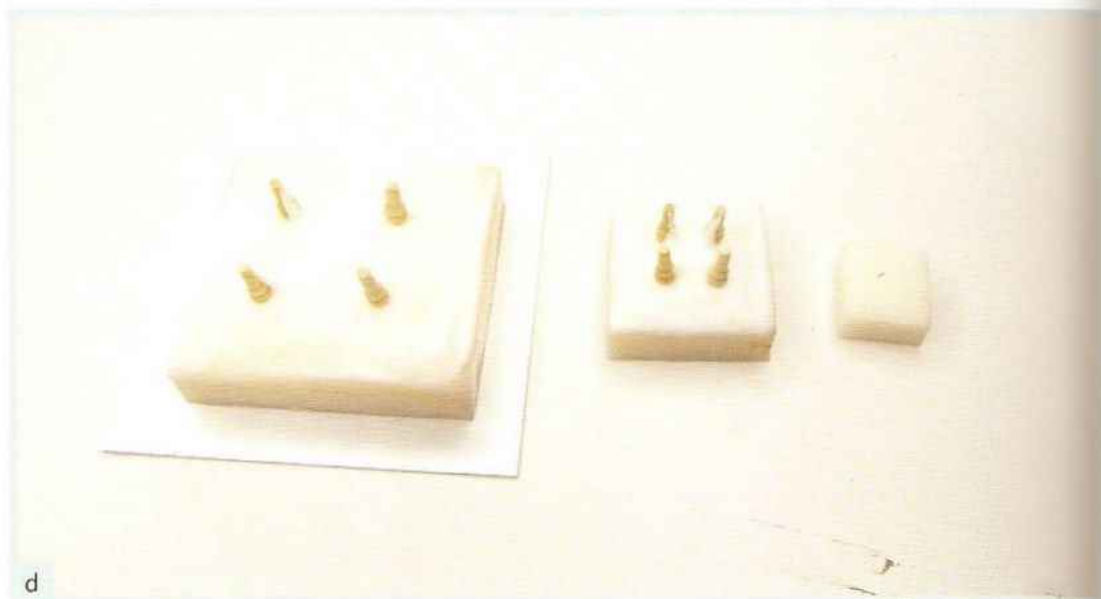
2. Cut the spindles down to sections of around  $\frac{3}{8}$  in (1cm). This length depends on the style of your candle (b).

3. You can paint the spindles silver or white, or leave them natural wood. Set four of the spindles on the base of the cake, remembering to set them within the size of the base of the next cake (c).



c



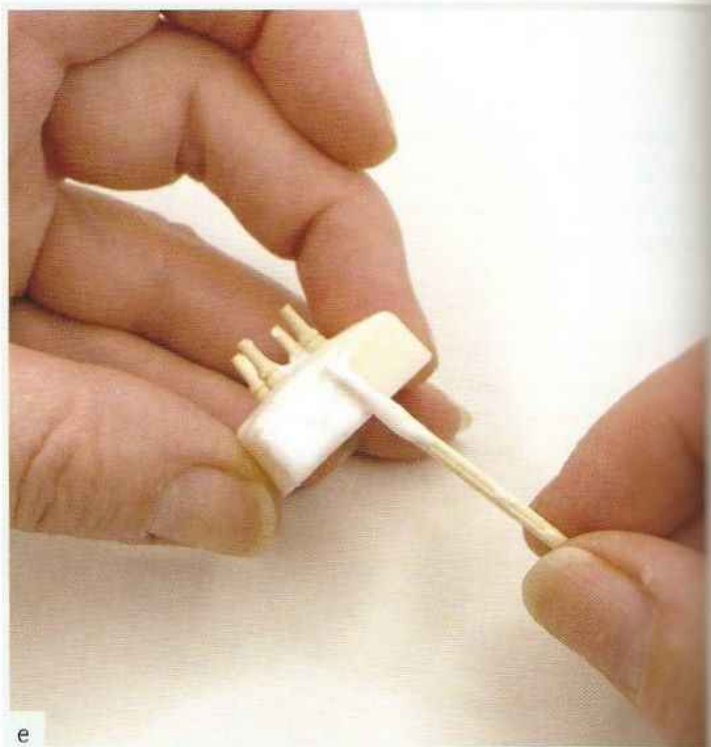


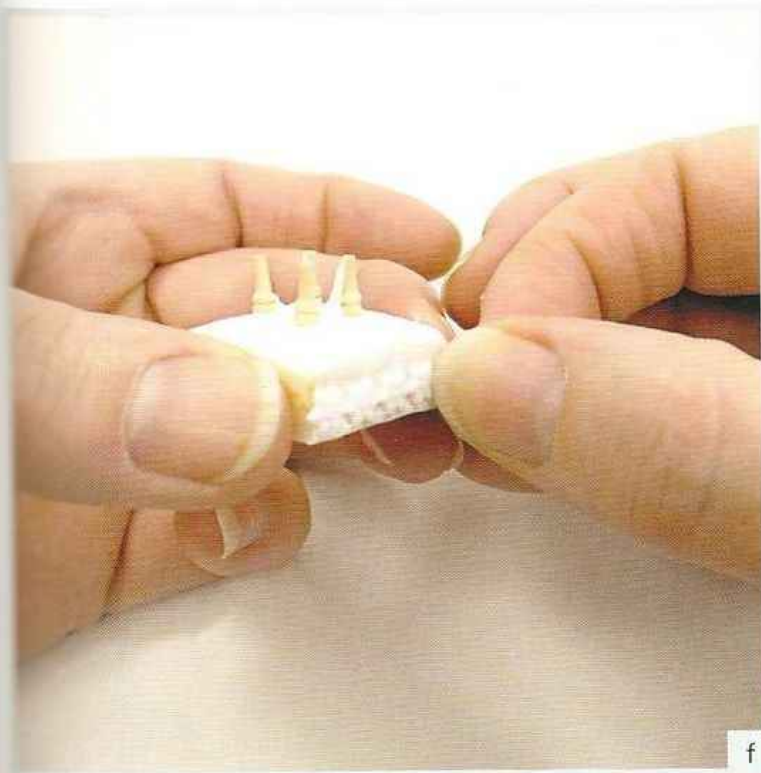
4 Draw some of the icing mix up the inside of the pillars in order to stick them more strongly to the cake. Do the same with the middle-sized cake blank (d).

5 Bake all three parts of the cake for 10 minutes.

6 Re-cover any parts of the cake that need it, using this fresh layer as a glue to adhere the moulded decorations to the side of the cake (e-f).

7 Bake each piece separately for 30 minutes.





8 Glue the last decorative elements on including, the top decorations.

9 If the cake is to be a permanent fixture, put a dab of white glue on the top of the spindles before assembling. Otherwise it is best to keep the parts separate, in case you want to move the cake or clean it regularly.

10 Edge the joins between cakes and boards with the snow writer and leave to dry (g).



# Cold porcelain

COLD PORCELAIN IS NOT ACTUALLY ANYTHING TO DO WITH porcelain – it just mimics it, but in fact it is usually an organic base, generally consisting of cornflour with PVA glue and oils.

Cold porcelain can be used in place of polymer clays or other modelling materials for almost any miniature modelling work. It is especially useful for work which is difficult or fiddly to make small enough, because it has the extra advantage to the miniaturist of approximately 30% shrinkage. This makes cold porcelain particularly useful for forming masters for mould-making, if you wish your final work to be smaller than your original.

Drawbacks with cold porcelain can be that miniatures made from it should not get wet or damp for prolonged periods because they may go mouldy, making them difficult to clean. Mixed colours can also dry out or go mouldy. Beware that insects and rodents can be interested in cold porcelain because of the flour content.





# Cold porcelain techniques

*Cold porcelain can be easier to handle than polymer clays and more forgiving for very delicate items. Because of its flexibility, it is easy to add shape with ball tools to leaves or petals. The drier it becomes in use, the more pressure you can put on it.*

## Uses

Cold porcelain is most commonly used by miniaturists for making miniature flowers and leaves. It is the favourite medium of Diane Harfield, a miniature flower artist whose cutters I use for miniature cold porcelain leaves, and I also use it sometimes for parts of vegetables and fruit, including tomato tops, strawberry tops, aubergine tops and physalis sheaths.

The material is rolled really thin, placed over the cutter and then rolled over with an acrylic or wood rolling pin. This should cut it, either leaving the flower in the cutter (you can remove it with a cocktail stick) or stuck to the rolling pin. If stuck to the rolling pin, it can be removed with a blade or a cocktail stick.

## Buying

Always choose a good quality make of cold porcelain. Some can be drier and less flexible than others, finer, or less/more opaque. CelPaste (also known as Asi Es) and Lamina brands are among those I've tried, and the Lamina brand seems to be the strongest and most flexible. I've found other brands too brittle for the really tiny fine calyxes that I make, for example for the tomato and strawberry tops.

## Keeping

The consistency of cold porcelain can be variable, depending upon how long you have had the pack and the brand. If the material is a little too sticky you can add a little cornflour but, for strength, it is best to roll out and walk away for a few minutes – perhaps long enough to make a cup of tea, by which time it should be usable.

## Making

You can even make your own cold porcelain. There are many recipes and instructions on the Internet, mostly based on flexible PVC glues such as Aleene's Tacky Glue, cornflour and mineral oil, although some have glycerine and preservatives added.



*Tomatoes and strawberries made in polymer clay with tops made from cold porcelain attached with liquid Fimo and then baked. The air-drying cold porcelain does tolerate baking very well.*

## Caution

Keep all your air-drying materials tightly wrapped, as cold porcelain is totally unforgiving about drying out and, once it's gone, it's gone. To prevent this, before it dries, wrap it in moist (not wet) fabric for a little while.

## Tools and work surfaces

Working surfaces and tools are different from those I recommend for polymer clays. Use a plastic or wooden rolling pin, not a glass one, because the glass sticks to the material and can also damage flat-plate cutters if you're using them. In addition to the flat-plate cutters, tiny open metal flowers, leaves and geometric and heart-shaped cutters can be employed for various miniature projects. Ball tools and cocktail sticks are also vital tools for this work.

I prefer a Formica or laminated surface when working with cold porcelain – a place mat is ideal, or even an offcut of smooth floor laminate.

During use, all work surfaces and tools should be regularly smeared with cold cream, or a white vegetarian cooking fat, to prevent the material sticking.

## Colouring cold porcelain

Use pigment powders or acrylic paints (but not oil paints) to colour cold porcelain. Depending on what you're making, you may also need to use some titanium white to make it more opaque and, if this is the case, you may need to add more colour pigment if you want a deeper colour. You can also brush on powder colours or, more unusually, sprinkle on and dab in.

I have also experimented using the Skinner shade technique (see page 48) to make the cold porcelain petals for the petal wedding cake (see page 148). It worked beautifully, but this technique has limited applications for cold porcelain miniatures generally.



# Petal wedding cake

*This wedding cake is decorated with cold porcelain petals using the Skinner shade technique to colour the porcelain. Don't worry if you find the petal-making technique too tricky as you can use bridal silk petal confetti instead.*

## You will need:

### For the cake:

- White polymer clay (or porcelain-coloured Puppenfimo)
- Round cutters of three different sizes
- Talcum powder
- Dowel or wooden knob
- Royal icing thick mix (see page 100)
- A very thin dressmakers' pin
- Small, pearlized glass beads
- Bought miniature roses (optional)
- Ribbon to finish
- A large round cake board or box lid painted silver

### For the petals:

- Cold porcelain
- Burgundy-coloured powder paint
- White powder paint
- Acrylic or wooden rolling pin (not glass)
- Ball tool with a small end, or one made from a small wooden bead and a cocktail stick
- Diane Harfield cutters or petal-shaped Kemper cutters
- Cocktail stick
- Quick-setting, white 'tacky' glue
- Some high-density foam (from craft or cake-decorating shops)



## See also:

Colouring cold porcelain  
– page 147  
Royal icing thick mix  
– page 100

Skinner shade technique

– page 48

Leeks – page 80

Diane Harfield cutters

– page 16





**1** To create the three tiers, form a thick piece of clay, powder the insides of the cutters liberally with talcum powder, then push the cutters into the clay. Remove any clay on the outsides of the cutters, but leave the clay inside them. Set the material, still in the cutters, in the oven. Bake according to the instructions on the polymer clay pack.

**2** Once the clay is baked, and while it is still hot, use a piece of dowel, or a wooden knob, to gently but firmly push on one side and then the other, to ease the 'cakes' out. If you want a very flat cake top, push the clay just partly out of the ring and cut off any 'bulge' using the edge of the cutter as a guide. If you prefer a naturalistic curve, leave it as it is, but you may need to fill between the cakes with extra royal icing.

**3** Stack the three cakes while they are still really warm, lining them up very carefully, then gently pushing the

fine dressmakers' pin right through the centre, to hold them together while decorating (a). (If they're not held together, they will 'wander' as you try to decorate the stack.)

**4** Cover lightly with the royal icing mix, taking time to ensure that it's really smooth (b). Wipe away any runs or excess with a piece of kitchen towel, and bake for 20–30 minutes. If the cake splits after this second baking, you can either fill the splits up with icing mix and bake again for 20–30 minutes, or cover the splits with decorations.

**5** Once the cake is finally baked, glue the beads on either in regular lines, or randomly (see 'tasty ideas').

**6** Make the cold porcelain petals (see page 150) and decorate the cake with these, together with bought flowers if you wish.

**7** Add the ribbon to the cake, attaching it with tacky glue, then assemble the cake on the board. If you want to have roses as well, the little bought ones blend in well with the cold porcelain petals.

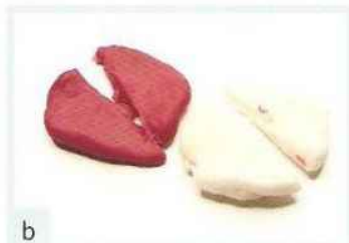
## tasty ideas

*To pick up the beads, you can 'lick' a piece of spaghetti, or use the blunt end of a one-ended cocktail stick (or cut one point off a double-ended one) with just a little of the sticky icing mix on the end to hold each bead while you move it into place.*

# Cold porcelain petals



a



b



c

**1** Mix two pieces of cold porcelain, one with coloured powder paint and one with white powder (a), then form into two square shapes (b).



d

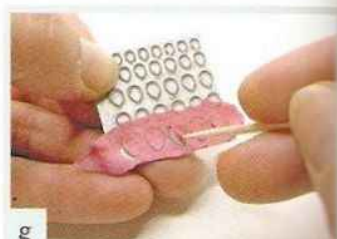


e

**2** Cut these shapes into triangles and stack the triangles in the same way as in the polymer clay Skinner shade projects (see page 48) except that, for cold porcelain use an acrylic or wooden rolling pin (not a glass rolling pin or pasta machine, as the material would stick to the rollers) (c–f). All the mixing processes must be done by folding, pressing and pulling the material by hand. This is much easier and more understandable if you have already learned the Skinner shade technique using polymer clay.



f



g

**3** When the material has been rolled to a really thin strip – like that in the leeks project on page 80 – place it over the cutter and then roll over it with the rolling pin. This should cut it,

either leaving the flower in the cutter (you can remove it with a cocktail stick) or stuck to the rolling pin (g). If stuck to the rolling pin, it can be removed with a cocktail stick or blade.

**4** To add shape to the petal, place it on the high-density foam, roll the outside edge with a little ball tool and then turn the petal over and indent the paler inner edge (h).



h

5 The petals can be fixed on the cake (using tacky glue) before they are fully dried (i). Air drying will take minutes or hours, depending on the humidity in the room. If you wish to have roses as well, the little bought ones blend in well with the cold porcelain petals.



## Petals from bought materials

*If you don't want to make petals from cold porcelain, you can buy bridal-silk petal confetti and 'customize' it. Really pretty little flowers, suitable for decorating miniature wedding cakes, can also be bought. The confetti and flowers are available from bridal departments, and some craft and cake shops.*

### You will need:

- Bridal-silk petal confetti
- A quick-setting, white 'tacky' glue

1 To make the petals, cut bridal-silk petal confetti down a little if necessary, to make the petals the right scale. Attach to the finished cake using tacky glue. To assemble the cake, glue on the ribbon and place on the cake board.





# Suppliers

*As I'm something of a tool 'junkie', I can't always remember where things come from. My advice? Keep your eyes open for useful shapes for cutters, moulds and textures. The list below should help you find most of the items used in this book.*

If you can't find a specific item, don't be frustrated. Use this as a challenge to find an alternative that works for you. In this way everybody's work will have it's own unique character. Because of the sheer number of products and possible countries involved I have given websites for well-known suppliers where possible. Where the manufacturers can be found and they have supplier details on their websites, I have provided those. I realize there will be crafters among you who do not have internet access, but most people do have friends or children who can be persuaded to help. Often your local library will allow internet access and even help with your research.



## Accessories

### Baskets

C & D Crafts: 5 Jennys Lane, Ravenstone,  
Leicestershire LE67 2AP  
tel: +44 (0) 1530 817754  
Zara Thomson Ribeaud: [zarathomsonribeaud.com](http://zarathomsonribeaud.com)

### Jam jars

[www.raystoreylighting.com](http://www.raystoreylighting.com) (trade only for jars)

### Metal baking trays, metal plates etc.

UK: Country Treasures, Janet and Paul Brownhill.  
tel: +44 (0)1889 500652 No website

### Miniature glass jars, open bottomed

Leo Reijnders  
Van Maerlantstraat 14, 5671 VM NUENEN,  
+31-(0)402832927,  
[l.reijnders@onsnet.nu](mailto:l.reijnders@onsnet.nu)  
(Dutch language only)

### Plates

Carol Mann, UK artist. Her work is difficult to find.  
Search online  
May still be exhibiting at Miniatura, Birmingham,  
England (check before going)  
Some pieces available US: [www.spminiatures.com/mann.htm](http://www.spminiatures.com/mann.htm)

# Glossary

**Adhesion** The ability of one piece of work to stick to another.

**Baking** The process of curing polymer clays, usually by the use of a conventional home oven.

**Canes** Long strips of clay, usually containing a design which is revealed in each and every slice.

**Caning** Producing designs in a form which can be lengthened to reproduce the image in a smaller form.

**Complex caning** Caning using a combination of techniques. Often requiring advanced spatial awareness.

**Condensation** The accumulation of droplets of water from moist air on a cold surface.

**Conditioning** The process of making clay malleable (soft and useable) by pressing, twisting, rolling or hitting it.

**Curing** Process of achieving an item's final state.

**Diluent** A material which dilutes a more solid material, i.e. a softener.

**Filigree** Wire work or motif.

**Finding** Joining or supporting components for jewellery and craft work.

**Humidity** The amount of water vapour in the environment.

**Inert** Not capable of changing chemical make-up easily. Not chemically active.

**Liquid polymer** Oven-bakeable (heat-setting) liquid medium.

**Modelling** Shaping items usually with the aid of craft tools.

**Modifying** Changing the property of a clay by the addition or removal of constituents e.g. oils.

**Mottled colour** Colour which does not cover the whole surface, allowing the underneath colour to show through.

**Moulding** Making several objects from one master using a mould.

**Opaque** Opposite of translucent saturated colours (of clay) which light cannot easily pass through.

**Polymer clay** A synthetic 'plastic' clay which cures (polymerizes) at relatively low temperatures in a home oven.

**Prismatic shapes** Shapes that show a uniform cross-section wherever you cut down their length, e.g. cylinders, which show a circular cross-section. Triangular prisms show a triangle when sliced etc.

**Proportions** Relative sizes of different elements in a design.

**Resist** A material which prevents one material sticking to another, e.g. talc, cream, oil.

**Skinner shade technique** Technique for producing gradual gradient fill effects in clay. The gradual change between two or more colours.

**Stratification** The lines which show that layers have built up. In the case of coconuts where the solids from the milk have formed layers.

**Studding** Long strips of screwthread without bolt head. Can be cut to form a texture tool.

**Translucent** Allowing of light to pass through it although diffuse. Not to be confused with 'transparent'.

**Unbaked clay** Clay in it's raw, not cured, form.

**Wasteage** Clay at the ends of a cane or produced during the making of a cane which can't easily be re-used due to the colour mix.